

DRIVE

the motoring magazine that's so different

March - April 1978

40p

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DRIVE

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Viewpoint

Journey into space

WELCOME to new *big* DRIVE! It has taken us almost 11 years to 'grow up' from our old, familiar, small format. Now we're a regular-size magazine, and it feels just great to have space in which to flex some muscles!

If you're a first-time reader—or perhaps one who remembers DRIVE vaguely from the past—you'll see, on the following pages, that we've grown up to be a power in the land: a motoring magazine of weight, authority and, above all, independence.

If you're already a friend . . . well, thanks for following us on to our new big pages. You'll find that, in changing size, we've *not* changed our down-to-earth editorial approach. But you'll also notice that we've seized the chance to make improvements, and to bring you more of the facts and the stories that mean most to you.

The first big improvement is, obviously, to our car-test programme. From now on, in each issue we shall present six long reports of new models, plus five secondhand reviews, and a series

of long-term tests—all with the active involvement of you, our readers.

We'll stay in close touch with you, too, through our popular Clinic of readers' questions-and-answers, through the invaluable Index of Motoring Costs (the subject of this issue's six-page pull-out supplement) and through our legal and insurance columns and the Used-car Price Guide. There will be more remarkable Special Offers—starting, on page 36, with a big-DRIVE introductory offer that has to be one of the most remarkable of all time!

Our investigative reporters are already working even harder to file the consumer stories that you'll find in no other motoring magazine (don't miss 'Britain off the rails', page 32); we're enlarging our sphere of influence with regular columns on money, travel, hotels, holidays, restaurants and motor sport; and, not least important, we're planning to *entertain* as well as inform you, with good writing (there's Colin Reid and Keith Waterhouse a few pages farther on) and the very best motoring cartoons.

Since 1967, small has been beautiful: DRIVE has always been

a unique driver's handbook, a good, long read, value for money. But, for once, big is going to mean BETTER. The editorial team is going to make sure of that.

We want to give YOU as much help with your motoring as we possibly can. We have no other aim, no other use for these wide-open spaces on which we now spread ourselves, freed from the fact-packed but cramped pages

that turned test reports into telegraphese, cut off advice columns in their prime . . . and simply crowded out so much material that we wanted to bring you.

So, stay with us. Read us every issue. *React to us*, letting us know how you feel about your car, your motoring, your DRIVE.

— the Editor

Monitor

Esso extras

In the past 21 years, apprentices from one of the most safety-conscious firms in the country have been involved in three fatal accidents and numerous serious injuries to eyes, heads and legs. Now, Esso at Fawley, Hampshire, has decided that the answer is—free car-driving lessons.

All the accidents happened *outside* the refinery gates, as the young men rode to and from their work on motorcycles. Of 16 apprentices who started in September 1976, 11 arrived on 50cc mopeds. One graduated to a larger bike—and was killed in an accident with a tractor; four others also had accidents.

Last December, training super-

visor Sidney Prout offered his apprentices free driving lessons—in the firm's time—as an incentive to car ownership; confirmed motorcyclists were given the option of a motorbike training course. It was an offer too good to refuse, and no one who was eligible failed to take it up.

By this Easter, 28 Esso motorcyclists are expected to have earned a full driving licence, and three of the eight who couldn't be lured from two wheels have passed a motorbike proficiency test—all for an outlay by Esso of £3000.

Free as air?

'Nobody seems to want air in their tyres any more,' observed

Harold Henthorn, after announcing that his Oldham, Lancashire, garage would charge 6p per wheel. 'We were fed up with people buying cut-price petrol at the place down the road, then driving here and demanding that we check their tyres for them. So I put up the notice about charging to deter them—and it works.' Air is still free to those who buy juice, and Henthorn says he'd never charge a motorist caught with his spare down. But his notice is there to stay.

Certainly such a charge does little to recover the expense of airline equipment which can cost up to £3000 to instal and £250 a year to maintain. With motorists splitting hoses by driving over them, ripping out wall-gauges when the hoses tangle in their bumpers and dropping hand-gauges, it can be an expensive service to offer.

'If the only way garages can afford to keep the equipment in good working order is to charge for using it,' says the Motor Agents Association, 'then we are sympathetic. But most garages will do all they can to maintain this traditionally free service. After all, soft tyres can kill.'

Unfortunately, a recent survey by Trading Standards officers revealed that half of the hose-end pressure gauges tested had calibration discrepancies 'that could be dangerous in some cases'. And a crack-down on their accuracy could simply result in airlines being withdrawn from public use.

The AA would not oppose a small charge of, say, 5p a car if it *guaranteed* accurate air-

pressure gauges. But, rather than play Russian roulette with tyre pressures on the forecourt, it's safer to carry your own pressure gauge, and use the airline only as a pump.

Testing times

Police and Home Office officials are scratching their heads over a strange twist to the latest drink-drive statistics. As *DRIVE's* investigation shows (page 24), there is growing evidence that young drink-drivers regard the breath-test as a joke. Yet, while the number of breath-tests in England and Wales has risen every year, the percentage of positive results went down dramatically in 1976 (the last year for which statistics are available). The number of drink-drive convictions, after rising steadily since 1970, suddenly plummeted by 10% in 1976 to a total of just over 57,000—the lowest since 1972.

Could it be that Britain's drivers as a whole are staying sober? Or are the police no longer using the Alcotest breathalyser accurately? Or are they testing more motorists who would previously have escaped a breath-test . . . while drink-drivers sneak past?

'We are aware of the implications in the figures,' says a Home Office spokesman, guardedly. 'The trend has not been consistent throughout the country, and we must admit that we're baffled that the overall total should have fallen.'

Police regions have been asked to report snags with the testing equipment, and to return faulty kits for analysis. Meanwhile, the Home Office is looking at alterna-



'For Pete's sake! When are you guys going to learn to slow down in ground mist?'

tive checks, and experiments are being conducted with sophisticated new equipment.

The hope is eventually to replace the blood and urine tests that are given after breathalysing, and so speed up the process of law.

The wonderful Mr X

Caring Motorists, it seems from *DRIVE's* postbag, are good neighbours, good Samaritans, and good friends, too.

They'll fiddle with your car when you can't get it moving; they'll stop on the road and take you and your problems in hand; they'll give lifts—sometimes driving miles out of their way to get you to an appointment on time. They are kindly, willing people who enjoy helping others, with no thought of recognition or reward.

DRIVE's nationwide search, launched seven months ago, has found six of these super-caring drivers, and some have been characteristically shy. So it was no surprise when Mr X, who came to the rescue of a couple of newlyweds stranded on the first day of their honeymoon, shunned

publicity: thanks, he said, but I'd rather remain anonymous.

Nevertheless, the help he offered was so comprehensive and so conspicuously needed that the judging panel, chaired by *DRIVE* editor Anthony Peagam, considered that he was a classic case of the Caring Motorist.

Adrian and Alison Clements met Mr X on a quiet road near Grantham, Lincs, at 1pm on a spring Sunday. Just 24 hours earlier, they had been married in Suffolk, nearly 100 miles away. Halfway to York and the start of their honeymoon, their 1965 Singer Chamois suddenly made a nasty grinding noise and came to a halt.

Mr X, returning home for Sunday lunch, was the only motorist to stop for the young couple. 'All we wanted was to be taken to the nearest phone box to call the AA,' says Adrian. 'It's the most we could have expected from the average motorist, but he was far from average.'

At first Mr X tried to find the cause of the Singer's trouble. When he couldn't, he insisted on taking the couple to his home to



MONEY

Fare shares

AS ANOTHER holiday season looms, thousands of families are facing hefty motoring bills even before they leave home: these are the Continent-bound motorists who, no matter which route they choose, will have to pay the best part of £100 to cross the Channel.

But do they *have* to pay this kind of money?

Many motorists are, in fact, saving a large chunk of their ferry bills—by investing a few hundred pounds in the shares of the companies that run the boats.

It's a little-known perk of ferry-company shareholders that these

lines offer cut-price crossings to their own backers. How much you have to invest, how long you have to hold the shares and how large the discount you get on the fare varies from company to company and from time to time. But to give an example: someone who bought about £250 worth of shares in P & O (Peninsular and Oriental) ferries last year could have taken a Ford Cortina, his wife and two children from Dover to Boulogne and back for £44, as against the normal 1977 fare of £73—a tax free 'perk' worth £29.

On top of that, of course, he would have been receiving dividends on P & O shares worth about £18 a year, before tax.

There's also the possibility that, over the years, P & O shares may grow in value—although, as with all shares, there's also the risk that they may go down. P & O shares, for example, fluctuated between £1.10 and £1.75 each last year . . . which gives you some idea of the way that shares, like ships, can pitch and roll with the winds of fortune.

P & O gives cut-price trips to anyone who owns at least 200 of

its shares; it takes six to eight weeks to get your name on the list of shareholders to claim the concession; the ferries run to Boulogne, Le Havre and to the Orkneys and Shetlands; and shareholders can't claim the discount on some peak-period runs.

European Ferries, which runs the Townsend Thoresen fleet, offers cut-price crossings to anyone who has held at least 300 shares for a year. Its shares fluctuated between 55p and £1 each last year, so 300 would have cost between about £165 and £300.

For this, a family of four could have taken a car across the Channel twice—once in the summer, once off-peak—and saved roughly half the fare, about £30, on each trip. They would also have had dividends on their shares worth about £10, and over the years the company's profits have grown handsomely.

Other companies give shareholders discounts on new cars, holiday, hotel and motel bills.

How do you buy shares? A bank manager can buy them for you, using the bank's stockbroker, or you can deal with a stockbroker

direct. The Stock Exchange, London EC2, will send you a list of brokers prepared to help.

Never be in a rush to pay off the mortgage. That is my advice to people who have had a windfall.

Your first instinct might be to pay off a chunk of the house debt, but you could quickly regret it: if you then find you need cash to buy a car, a caravan or something for the home, you might have to borrow from a bank or a finance company at a far higher interest rate than the building society's.

Take the man who finds he has £2000 to spare. By paying it off his mortgage he might save himself, say, 8½% interest—£170 a year on £2000. But the income-tax relief on that £170 brings the true cost down to about £112.

If he parked the £2000 in a building-society account, he would earn £110 a year, clear of income tax at the basic rate.

For the sake of 'losing' about a couple of pounds a year he keeps his £2000 handy for emergencies or for a bargain. ROBERT HEAD
Robert Head is the City editor of the Daily and the Sunday Mirror

join his family for lunch. From there, Adrian phoned the AA.

The AA patrol couldn't assure the Clements of a swift getaway: the car needed to be towed to a garage for repairs. Meanwhile, Mr X, still at hand, arranged a hotel room for Adrian and Alison—and later he and his wife took them out to dinner. Next day, hearing that it would cost £120 to fit a new gearbox to the Chamois (more than the couple had planned to spend on the honeymoon), he found them a secondhand unit and loaned them £35 to buy it.

Even then he wasn't finished. For, after collecting the gearbox in his own car, he arranged for the pair to have a hired Mini for the rest of their honeymoon week.

Mr X, a 39-year-old businessman, was astonished when DRIVE told him of his nomination as a Caring Motorist. 'I can't think of anything I did that other people wouldn't have done under the circumstances,' he said. 'If I



thought I deserved recognition, I'd be the first to want to be named and to accept a prize. But I did nothing to be proud of.'

Mr X won't be identified, but he has been offered his prize: 10 years' free membership of the AA. And Adrian, a 28-year-old accountant, and his wife, who now live in Frome, Somerset, will have a £10 choice from the AA's mail-order catalogue.

The roll-call will continue in each DRIVE, and a list of runners-up will be published when the sixth and last Caring Motorist is named.

Schools for safety

Training is all-important if road-safety men and women employed by local authorities are to become effective specialists. The not-too-encouraging news is that there are only two courses carrying qualifications for road-safety officers—in London and Cardiff—and both report low attendances.

At London's Middlesex Polytechnic, where the scheme has been running for four years, just 11 candidates are studying for the second-year certificate, while only 13 will this year sit the fourth-year advanced examination. Indeed, to date, only 27 second-year certificates have been awarded. Similar courses at Cardiff's Polytechnic have attracted a mere eight candidates in the first year of study.

All this despite sending out 650 brochures bringing the courses

to local authorities' attention and advertising in RoSPA's *Care on the Road* newspaper and the Institute of Road Safety Officers' magazine.

Why are local authorities seemingly so reluctant to pay for staff training in the latest road-safety techniques? The course fee of £40 per student per year would scarcely break the bank, and attendance is required only one day a week. As Peter Roy, the course-leader at Middlesex Poly, points out: 'Local authorities send architects and engineers on qualification courses, so why not road-safety officers?'

These fuelish things 1

A pocket calculator is essential driving equipment in these days of complex petrol offers. Take the experience of motorist Richard Wildash, when recently he pulled into an Ealing, London, garage and asked an attendant for £5-worth of 4-star fuel.

The most prominently displayed price was 79p a gallon, but the details on the pump were less generous: 88p a gallon, with a 9p discount on each full gallon.

Going by the 79p-a-gallon advertisement, Wildash expected 6.33gal for his fiver. But he got only 6.19gal, because when the pump registered £5 the amount of fuel dispensed (at 88p per gallon) was 5.68gal, and the assistant maintained that he was eligible only for a discount on five full gallons—45p, or its equivalent in petrol, 0.51gal. Wildash's claim that, at 79p per gallon he should have received six full gallons for £5, fell on deaf ears.

The complicated moral is: before you ask for a fiver's-worth, get out your calculator . . . and just ask for 6.33gal instead.

These fuelish things 2

Meanwhile, near Custom House, London, a member of DRIVE's staff pulled out a bank card and began to write a cheque for the fuel he had bought.

'Sorry, guv,' said the attendant, 'the boss don't allow cheques.'

'There's no notice to that effect,' the DRIVE man pointed out.

'Well, you should've asked first, mate,' was the reply. And it was the final reply.

Unfortunately, our staffer didn't have the time to hang around: it could have been interesting if he had pretended not to have the cash. The shirty attendant might just have taken a cheque rather than syphon out the fuel!

Derby winner?

With the novelty of the hatchback concept wearing thin, Volkswagen has enlivened showrooms with its new Derby—a conventionally styled saloon based on the Polo.

Launched in Germany last year, the Derby is selling faster than

Languages?

The discovery of the century.

AN internationally well-known language institute claims that there is now a fast, really easy way you can acquire a new language. Based on the listen – understand – speak formula, and stimulating yet beautifully simple in its approach, the Linguaphone method is proving amazingly successful. Even people who were sure they had "no talent for languages" are finding that in just three months they can be speaking French, German or Italian, with confidence and a good accent. And with real enjoyment.

Fascinating

The method is the result of extended investigations by international panels of linguistic experts and makes use of advanced techniques often without your being aware of them. You can use it successfully at home on the basis of just thirty minutes a day.

A new language opens up the most fascinating future. And what a boost to your self-confidence! Consider how much more enjoyable your holidays abroad will be when all the notices and the newspapers and the things people say in cafés suddenly come alive. Imagine

DISCOVER HOW YOU CAN:

- ★ Learn a language in only 30 minutes a day.
- ★ Grasp grammar and vocabulary effortlessly.
- ★ Acquire an authentic accent.
- ★ Help your children with examinations.
- ★ Be a success in business.
- ★ Really enjoy your holidays abroad.
- ★ Open up new cultural horizons.

being able to choose to work in another country. Think, too, how astounded your friends will be to hear you slip casually into smooth, fast French. (In fact there are 34 languages to choose from!)

FREE

To give readers of *Drive* an insight into this easy and practical way to gain a new language, the Linguaphone Institute has produced a 24-page brochure in colour which will be sent free on request. Without obligation. Fill in the coupon, and send it in an unstamped envelope addressed to The Linguaphone Institute Limited, Dept. DV20, Freepost 36, London, W1E 5UZ. (No stamp needed.)

To: Linguaphone Institute Limited, Dept. DV/20, Freepost 36, London, W1E 5UZ (No stamp needed)
Please send me your FREE record ☐ or Free cassette ☐ and illustrated brochure of the new language courses (Tick as applicable)
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FRENCH ☐ **GERMAN** ☐ **RUSSIAN** ☐ **SPANISH** ☐
Put a cross beside the language which interests you.

Other languages.....
Name..... Age.....
(Block Caps) Mr., Mrs., Miss. (If under 18)
Address.....

Personal demonstrations in London: Linguaphone Showroom., 207 Regent St; Foyles; Harrods. Also: Rare Records, Manchester and Readers Digest Centres in Beale's of Bournemouth; Rackhams, Birmingham; Rushworth & Dreaper, Liverpool & other stores nationwide.

With the VX2300 GLS, Vauxhall have written a new chapter in The Art of Motoring Relaxation.

Not only are the ribbed, velour seats ergonomically designed to support your back in the manner it deserves.

Continental armrests, front and rear, cosset you further.

Carpeting is in evidence throughout. That includes door-trims and boot.

Generous internal dimensions give you room to stretch. Through-flow ventilation and face-level air vents give you room to breathe.

All essential controls are positioned so that your mind is not distracted from the real business of driving.

Tinted glass all-round and sun visors protect your eyes. Push-button radio with twin speakers is music to your ears.

But perhaps nothing is quite so calming and reassuring as the feel of the 2300 engine.

It will glide you from 50-70 mph in 9.1 seconds.* Power steering will guide you quietly through the longest day.

If you need lessons in relaxation, the VX2300 GLS has much to teach you.

All Vauxhalls are eligible for the low-cost Vauxhall Insurance Plan.

The VX series comprises three saloons, VX1800 £3605, VX2300 £3766, VX4/90 £4474.

Two estates: VX1800 £3901, VX2300 £4062. Also available is the more luxurious VX2300 GLS saloon (as illustrated) at £4792.

Prices include fitted front seat belts, car tax and VAT at 8%. Delivery and number plates extra. All prices are correct at time of going to press.

Vauxhall Motors Ltd., P.O. Box 3, Luton LU2 0SY. For details of your nearest Dealer ring Luton (0582) 21122. Ext. 4159. For Fleet enquiries Ext. 4465 or 4160.

*Motor Magazine.

A practical alter



VAUXHALL



native to yoga lessons.





VW's Derby—a shiny little Polo with a boot on the back

the Polo, thanks to an 18.2cu ft boot that makes it only 14in longer than the Polo. Only one model is available in Britain, powered by the same, high-revving 1100cc engine as the top-of-the-range Polo LS and giving the Derby a claimed top speed of 88mph and a 0-60mph time of 15.4sec. Once-a-year servicing aims to outweigh the highish cost of parts; most owners should achieve 40mpg overall on 2-star.

Inside, the Derby is noticeably quieter and smoother than the Polo, with the enclosed boot giving extra insulation against noise. Instrumentation is basic and unfussy; seating for four is cloth-covered and reclining at the front; and a heated rear screen, reversing lights, head restraints and screen wash-wipe are all standard. Factory-fitted options include a laminated wind-screen, tinted windows and a sliding steel sunroof.

VW executives seem confident that the price of £2850 can be held until the autumn.

Auction replay

Flashback to the car bought by DRIVE for its MoT-test exposé (January–February): it's only fair to point out that Southampton Motor Auction Mart, where the car was bought, could not be blamed for allowing such a defective vehicle to be sold. The company was merely acting as an agent for the vendor. And, even after a sale, Southampton buyers have a comeback in cases where serious defects have been omitted from a vendor's description—provided that the vehicle fetches more than £100 and is returned within three days.

For the record, the DRIVE investigator was offered his money back after an inspection by the Southampton Mart's resident engineer confirmed a number of faults which had been mysteriously passed by an MoT tester just five days before the car's sale.

Britain's backing us

So keen is the government to spread the gospel of fuel economy that the Department of Energy is planning to distribute hundreds of thousands of copies of DRIVE's mpg article (see page 46) through-

out Britain later this year. 'We are hoping,' says Whitehall, 'that, in the national interest, motorists will take note of the good advice it contains.'

Yam sandwich

Britain's motorcycle industry is crawling back from the grave... with the help of one of the Japanese companies that pushed it underground in the first place.

NVT Ltd has joined forces with Yamaha to produce a new 750cc shaft-drive Norton. First sales of

the new bike will be restricted to the police forces.

NVT sales manager Mike Jackson claims that the British product will handle better at high speed than a BMW, and that spares will be cheaper. At present, its British content is small, but it demonstrates where faith is lacking in Japanese machines: British parts include tyres and disc brakes.

NVT Ltd now has more than 9% of the 50,000-a-year moped market with its Easy Rider.

Road information

Numbers in parentheses refer to maps in the 1978–1979 *AA Members' Handbook*, available for collection by members at AA service centres from 20 March.

BRITAIN

Motorways open M4 Cardiff (A470)–Bridgend (A473), 12.2 miles (15, 16); M4 Pyle bypass, 5.6 miles (15); M90 Junctions 9–10, 2½ miles (52).

Major roads open Potteries 'D' Road A500, 3½ miles (24); Chilton–Drayton A34, 6 miles (17); Marske bypass A174, 2.7 miles (41); Lewes bypass A27, 2½ miles (10).

OVERSEAS

Austria Innsbruck bypass (A12) com-

pleted, linking A12 eastern and western sections by a twin tunnel under Bergisel mountain.

Belgium 19km-long Brussels northern 'Ring' is open for traffic between motorway E5 west and E5 east to completely bypass the city. It runs between the Brussels terminus of the Ostende motorway to the exits for Liege and Namur. From west to east, it is signposted 'Antwerpen', then 'Leuven–Louvain', 'Liege–Luik', 'Namur–Namen', and 'Charleroi'; east to west 'Ring' reads 'E10', 'Gent–Gand' and 'Antwerpen' and then 'Gent–Gand' and 'Ostende'.

France Autoroute A41 toll motorway extended by 26km between Chambéry to Annecy. Toll charge for cars is 10F, cars with caravans, 15F.

Switzerland N12 toll-free motorway extended by 7.2km between Fribourg to Bern, where there is a direct bypass link with the N1.

Czechoslovakia Seatbelts, if fitted, must be worn, children under 12 not allowed on front seats, and drivers and passengers of motorcycles over 50cc must wear crash helmets and goggles.

Denmark As from 1 May, warning triangles must be used to warn following traffic of an obstruction.

E Germany Children under seven not allowed on front seats and seatbelts, if fitted, must be worn by drivers and passengers.



HEALTH

Bitter-sweet recipe

FOR A diabetic, Mr B did it all wrong the day he set off, alone, on a business trip to south-west England. He left his home at 5.30am, missing his breakfast. Instead, he took brunch—bacon and eggs—at 11.30, half an hour after giving himself his daily insulin injection.

During the course of the day, he made a number of business calls, and—another mistake, given an already hectic schedule—continually heaved cases of samples in and out of his car. Then he missed his usual afternoon tea, making do with only a chocolate bar.

Some time on the drive home that evening, Mr B lost his memory. So he has no recollection of veering across the road to collide head-on with another car—an accident that caused the death of the other driver.

This cautionary tale is one used by the British Diabetic Association to illustrate the dangers for insulin-dependent diabetics who depart from a vital pattern of regular meals. For that was Mr B's fatal mistake, compounded by undue physical exertion, causing

the drastic fall in blood-sugar to bring on a hypoglycaemic attack.

Diabetics fall into three groups according to treatment: those who have only to keep to a diet, those helped by tablets, and those who rely on injected insulin. This last group—predominantly people who, like Mr B, developed diabetes early in life—are the ones most likely to suffer hypoglycaemic attacks.

The point is that insulin—a lifeline, discovered in 1921, for the seriously diabetic—makes good the body's failure to withdraw excess sugar from the blood. But, if the injections are not matched by adequate food (specifically carbohydrates), the insulin does its job too well and the blood-sugar level drops to a dangerous low. The diabetic then develops some of the symptoms of hypoglycaemia—sweating, trembling, nausea, confusion, bizarre, often aggressive behaviour, loss of muscular control, even ultimate collapse and coma. The similarity of some of these symptoms to drunkenness is why diabetics are sometimes mistaken for drunks.

It is the risk of these symptoms that raises a question-mark over the diabetic driver. Some doctors feel that diabetics should be made to experience an insulin reaction before being granted a licence.

At the moment, however, the diabetic's fitness to drive is still a matter of individual responsibility: the health declaration in the driving-licence application form doesn't mention diabetes by name, and the only relevant question is the one that asks about giddiness and fainting.

All the same, it is an offence not to declare relevant disorders, and


the BDA's advice is that diabetic applicants should report their condition, and, too, state on the form whether it is controlled by diet, tablets or injected insulin. Similarly, their insurance companies should be notified, for a policy could be invalidated if an undisclosed medical history subsequently comes to light.

But, while diabetics are barred from taking employment as heavy-goods or public-service-vehicle drivers, they do have a good safety record as private motorists, says the BDA. This is particularly true of those who are fully alert to the early signs of hypoglycaemia, and who keep an emergency supply of carbohydrate (sugar, chocolate or sweet biscuits) in the car.

If hypoglycaemia threatens, it is important that a diabetic *should stop driving immediately* and take something sweet. He could be well advised, too, to remove the car's ignition key, and even to vacate the car to avoid the risk of being found in charge of the vehicle while under the influence of a drug—which insulin is in law.

Other than this, the only circumstances in which diabetics should not drive are: if they are being stabilised on insulin (each diabetic has to have his or her particular dosage worked out over a period of time); if they are on shift-work, when there are obvious difficulties with balancing insulin intake and meals; or if their condition has affected the sensation in their limbs or distorted their eyesight.

Finally, it is not generally known that 'diabetic' beers can pack more of a punch than ordinary beers. Although lower in carbohydrate value, their alcohol content may be twice as high.

CITROËN 

CITROËN GS.

"A car of sophisticated modern design. It is remarkable that it can be produced at such a competitive price."

John Bolster,
AUTOSPORT



CITROËN CX.

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CAR magazine.

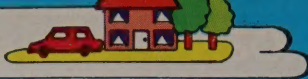
THE THINGS THE BRITISH SAY ABOUT THE FRENCH!

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Drive Directory



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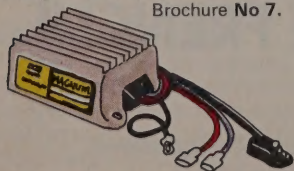


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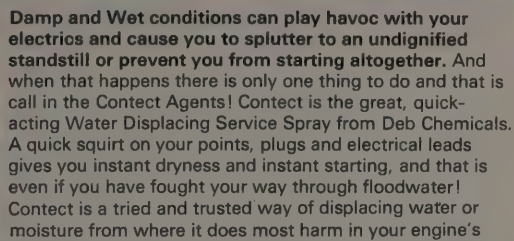


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The publishers of this magazine have given to the **Director General of Fair Trading** an undertaking to refund monies sent by readers in response to mail order advertisements* placed by mail order traders who fail to supply goods or refund the money and who have become the subject of liquidation or bankruptcy proceedings. These refunds are made voluntarily and this arrangement does not apply to any failure to supply goods advertised in a catalogue or direct mail solicitation.

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Drive Directory Coupons

DR 1

How does a motoring magazine test a family car? How can professional car-writers, hardened by a life of throwing exotic machinery round a test track, tell what will appeal to 'ordinary' motorists? DRIVE's road reports have always been aimed at the everyday driver. Now we go a logical step further: joining our expert roadtest team are four DRIVE readers, who will themselves try out

every testcar to supply the Everyman Report—roadtesting for the people by the people. You can digest their views, and the professionals', in DRIVE's bigger, more detailed Supersix Tests. Here, we kick off the first half with three 1.3litre saloons—Ford's Popular, Lada's 1300 and Mazda's 323. Above, the men—and woman—on the road for DRIVE: l-to-r, salesman Glenn Shipton, 22, of Ruislip, London, usually drives a 1966 Austin Healey Sprite; Glaswegian James Winchester, 66, retired insurance official, has a 1973 Saab 96; company director David Everest, from Heathfield in Sussex, owns a 1974 Ford Granada; and housewife Joan Phillips, 25, drives around Basingstoke in a Ford Escort

Ford Popular 1300 Plus



IF IT MOVES, PAINT IT BLACK

Back in 1975 Japanese cars were flooding into Britain with prices and specifications to send buyers running for their chequebooks. They may not have provided much fun for professional car testers, with their vague steering gear and thinly-covered seats, but by British standards they were extremely well equipped. It was enough to make Henry Ford I spin in his grave.

Henry launched the Ford Popular in 1934 as 'the £100 car'; now, 30 years later, the Yellow Peril was threatening to steal this very market from the original masters of mass-production.

Ford responded to the threat by resurrecting the trusty Popular—a 'cheap' Ford Escort that, while no longer costing £100, certainly represented bargain-basement motoring.

Top of the 1977 Pops is the 1300 Popular Plus tested by DRIVE in

two-door guise. And apart from an Escort-standard paint-job, it is not immediately obvious what you miss out on. Carpets, cloth upholstery and technical specification are the same as those of more expensive Escorts. It's not until you start to look under the skin that you notice the lack of things such as a heated rear window, reclining seats and a glovebox.

Is this how the West was won over? Not with a bang but a Pop? Read on...

How it goes

Under the bonnet goes a 1298cc version of Ford's evergreen Kent engine. Unlike the 1100 Pop, with its detuned engine, the 1300 Plus relies for economy on the Dagenham 'blind-them-with-science' sonic-idle carburettor.

A first-time starter on a manual choke, the engine warms up quickly and soon gets over its initial valve-gear rattle. With an overall petrol consumption figure of 33mpg—3½mpg worse than the Mazda, but 5mpg better than the Lada—the Pop rates a could-do-better, could-do-worse comment.

Short trips to the office produce a commendable 30mpg, and with a very light right foot it should be possible to average 40mpg on a long haul. Driving briskly across country, the car gives 33½mpg, and on the motorway at 70mph it

achieves 28mpg. The 9gal tank promises a useful 275-mile range; and, like all Fords, this one is almost teetotal when it comes to oil consumption.

Performance is not brilliant by today's standards, and the Pop is shown a clean pair of wheels by several rivals on its way to a top speed of 85mph. A 0-60mph time of 17.1sec is hardly startling; the best one can say is that it is a full 6½sec quicker than the sleepy 1100 version. But it will tackle long, gentle ascents without needing a change of gear. (Drivers

who cannot be bothered to drop a cog are faced with a 30-50mph time of 13.8sec—a full 2sec slower than the Mazda, and slower even than the 'agricultural' Lada.)

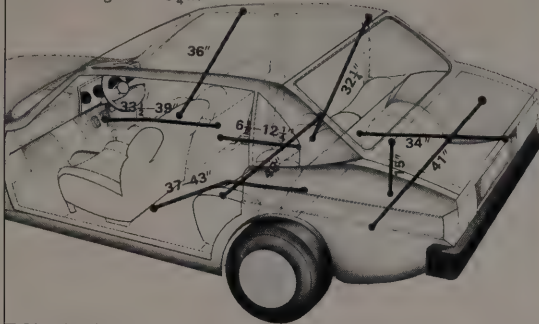
An Escort gear change is about the best that money can buy, and the Popular's is no exception, with an action that's as smooth and quick as a stripper on piece-work, slicing through ratios that are well chosen for British speed limits. The one jarring note is the clutch which, though light, is rather 'late' and sudden in action. It caused the testcar to have a

1300 reasons why





kerb weight 16½cwt
overall length 13ft 0½in
overall width 5ft 2½in
overall height 4ft 5½in



a Pop driver will find the car running gradually wider on fast corners, but easily brought back to heel by lifting off the throttle.

Ride comfort is not the Popular's *forté* (the same problems at the expensive Ghia end of the Escort range must be embarrassing for Ford). Poor road surfaces are anathema to the ageing suspension design. Steering is informative rack-and-pinion, well-weighted and offering good road 'feel', if a certain deadness in the straight-ahead position.

DRIVE's Popular had a brake

Everyman Report

Surprisingly, DRIVE's amateur testers were almost unanimous in their judgements on the Popular—everybody's second choice, and oh-so-professional.

Glenn Shipton complained about motorway wind noise and modest performance, but was otherwise kind—until he tried to reverse: 'I couldn't see the back end.' Like a professional, he tried out the back seat and pronounced it 'lacking legroom'.

James Winchester had no complaints: 'The ride was very comfortable, and I didn't worry about the non-reclining seats—they are set at a well-chosen angle.'

David Everest thought the engine was sweet. 'But I didn't like the room in the back, and the car needs a bit more performance.'

Joan Phillips felt that the car had 'a tendency to wander and lacked roadholding. But,' she added with a touch of expertise, 'perhaps I've been spoiled by the front-wheel-drive cars in the test.'

servo—an optional £32 extra—plumbed in to a dual-circuit front disc/rear drum set-up that demands a sensible pressure of 50lb to produce an unexceptional best stop of 91%. But, unlike some of the most expensive cars that money can buy, the brakes on the 'cooking Popular' maintain the same excellent pressure needs however much they are tested.

Inside story

Throw in the option of reclining seats—nearly everything is optional on a Popular—and you

can just about live with the poor position of the steering wheel: it's far too close for comfort. But for this setback, most owners could find comfort in the well-chosen seat positions, although smaller drivers end up with the worst of the deal.

Ford's Escort instrument panel is the proud winner of a Design Centre award, and the Popular has a variant of it. But it's the most basic version of the lot, leaving only the barest essentials of a very accurate speedometer, a very inaccurate fuel gauge and a water temperature gauge. Five warning lights fill in some of the gaps, and what's there is certainly easy to read... if you could only see past the steering-wheel boss that obscures them.

Minor functions—lights, wipers, indicators, washers and flashers—are lumped on three column stalks in Continental style. The worst feature is that the lights stalk can be knocked to the 'on' position while fiddling with the ignition switch.

Lumbar support from the cloth-covered front seats looks bad at first sight, but first feel tells another story: no DRIVE tester complained of backache, although most ended up with a lower opinion of the seat cushion, with its numbing effect...

As a four-seat car, the Popular is left standing by front-drive rivals, such as the Allegro, that save the need for a prominent transmission hump. Headroom is no problem in the Popular, but kneeroom certainly is. The two-door version is not the easiest for back-seat entry and exit, and, once there, comfort is spoiled by saggy seats and a back rest that allows passengers to roll around.

There is body boom at 50, 60 and 70mph, and rear-seat passengers get the worst of the din.

Oddments space is restricted to a roomy, under-facia parcels shelf, but luggage accommodation is good, despite the inclusion in the boot of the spare wheel and petrol tank. The high sill, though, means a big lift for heavy items.

Heating and ventilation is all that you might expect from the people who invented Aeroflow, and the temperature is easily

controlled by two smooth-acting slide controls that light up at night. Heater output is so fierce that it is difficult to keep both feet at the same temperature—the one nearest to the outlet is grilled; meanwhile, rear-seat passengers are left in the cold. Rotary eyeball vents will blast in cool air, but a driver will be annoyed to find that if he wants a cool face he has to have a cold right hand, too. Charging extra for a heated rear screen is a bit mean these days.

With its padded steering wheel on a collapsible column and its

Price £2338
on the road £2450
Parts/repairs (inc VAT, fitting time in brackets)
clutch £29.33 (2hr 12min)
exhaust £29.98 (42min)
headlamp unit £18.15 (30min)
front bumper £12.72 (24min)
laminated windscreen £28.73 (1hr 30min)
oil filter and points £4.26 (36min)
major service—6000 miles (3hr)
Loss of value £29 per year
0.24p per mile
Total depreciation £447 per year
3.72p per mile
Running costs £539 per year
4.49p per mile

burst-proof doors, the Popular makes a stab at keeping its occupants safe. However, in the interest of keeping down prices, rather too many safety items have been designated optional extras: head restraints, hazard warning flashers, even seatbelts add to your bill, and the cost of ordering a laminated windscreen is discouraging—dearer, even, than buying one across the counter. And there is nothing an owner can do about the vulnerable fuel tank and lack of padding around the windscreen and other crucial safety areas.

Living together

Ford continues to pay only lip-service to rust prevention, placing its trust in a coating of primer. Escort owners soon discover that it is not enough. There's no evidence of any thought for obvious mudtraps under the front wheel arches, around headlamps and on the top of the rear platform—rivals do a much better job.

The testcar's matt-black door sills had a wavyline finish where

more-than-normal struggle with a 1:3 hill restart.

The whole of the Popular/Escort family—with the exception of the three Sport boy-racers—share Ford's conventional, if primitive, suspension set-up of coil springs and struts at the front and a live axle with leaf springs at the back, with anti-roll bars to keep both ends level on the bends.

Handling is safe and well balanced, with road manners that verge on the sporting; standard radial-ply tyres give good grip. Thus encouraged to 'have a go'.

paint had been thrown on, and the rest of the paintwork suffered from unsightly blotches and imperfections. Long-term owners might do well to take other measures to protect their investment against corrosion.

It is with a sigh of relief that one opens up the bonnet: DIY types will have no problems with Ford's tried, trusted and relatively cheap mechanicals, with the rear-drive set-up offering unrivalled engine access. Service items are all easy to get at.

The big windscreen-washer reservoir is a boon, for the Popular certainly seems to collect more than its share of road dirt. The matt black of the bumpers and so on is, however, easier to keep unblemished than chrome.

Inside, the cloth upholstery is robust enough, but—annoyingly—the carpets have to be cleaned *in situ*, and demand a vacuum with a hose attachment.

Ease of repair and good parts prices will make Pop-pickers out of many depreciation-minded motorists: ownership of this Ford should cost only £850 over two years in today's terms. But the added power of the 1300 over the

basic 1100 model has pushed the Popular out of the cheapest insurance rating into group 2—a factor that will influence some.

In the welter of Fiesta publicity, the Escort/Popular range has been somewhat eclipsed—even Ford's substantial press fleet didn't have a Pop Plus 1300 when DRIVE asked.

Like the highly successful Japanese cars that prompted the Popular's arrival, the Ford 'cheapo' offers nothing to those who want the best in modern automotive technology; the Fiesta beats it hands down on that score. The Popular's nonsense, conventional design, however, is likely to give the car a psychological advantage in some people's minds . . . if not quite in fact.

With British products as competent as the Popular, the success of common-or-garden Japanese cars is difficult to understand. If you lived in Tokyo, you'd hardly be tempted to run a Popular, yet the Orientals can and do carry their coals to Newcastle, London and any other British city.

There's no justice . . .

Popular and Mazda's 1300, the Lada's acceleration is good/average: 60mph comes up in 17.4 sec from a standing start, and a top-gear overtaking burst of 30–50mph takes 13.2sec.

Less impressive, however, is the time it takes to go from petrol pump to petrol pump—an overall 28mpg, falling to 23mpg around town, compares poorly with western 1300s, such as the Popular, offering some 6mpg more.

In other respects, however, this is the best Lada yet. It's hard to discover exactly what has been done, but the 1300's ride and handling seems to be an altogether more competent and controlled affair than that of its Lada stablemates—less bouncy and flurried, with improved damping apparent over wavy surfaces or hump-backed bridges.

Cornering is much more poised around bumpy bends, too, even outclassing rear leaf-sprung rivals such as the Morris Marina or Datsun 120Y. Only the cumbersome steering, with its sloppy free-play, spoils the car's pleasing cornering manners, but its arrow-straight behaviour on windy motorways seems very secure.

One of the nicest surprises is a gear change that works better than its brutish appearance suggests: it has a short, clean action, powerful synchromesh, and only reverse is a struggle to find at times. Despite a squelchy feel—a hangover from earlier Ladas—the clutch engages smoothly.

Similarly, the accelerator feels characteristically spongy, but its new linkage is such an improvement on previous Lada pedals that it's unkind to complain.

Wind hiss is only too apparent at speed, partly because of a commendable absence of tyre noise and body creaks on even the coarsest road surfaces.

From the safety angle, the Lada's braking and handling emerge as reassuring—if uninspiring to the boy-racer. On its now-standard Goodyear G800 radial-ply tyres, the car will run steadily wider on corners as the pace quickens, but easing off the accelerator brings it into line.

The brakes, too, are much better than the initial feel of the pedal suggests. Despite its longish travel, firm pressure produces a sensible progression up to an excellent emergency stop. They resist fade, and only a thorough soaking makes them feel weak for a while. The handbrake does a good job.

The old-fashioned, boxy shape that betrays the car's age comes into its own in the car-parking stakes: it takes up less kerb space, and it's easy for the driver to tell where the car ends and begins. The steering—admittedly less weighty than in previous Ladas—

is too high-g geared, and a tighter turning circle is desirable.

Inside story

Undeniably quaint, the Lada's styling is nonetheless nice in a 'cosy' sort of way. Instrumentation appears to be restricted to coolant-temperature and fuel gauges inset in an obsolete-looking speedometer that, with markings every 20mph, doesn't help drivers stick to British limits. Closer acquaintance, however, reveals warning lights for the handbrake and low fuel as well as the usual telltales.

Three stalks sprout from the steering column—one for indicators, one for the good halogen headlamps and the last for the fiddly wash/wipe (single speed, but with an intermittent-wipe facility). There has been a general tidy-up among the minor switchgear, too: it no longer looks as if the car has been fitted by an apprentice plumber. But you still need two hands to move the reluctant sunvisors, and the dipping rearview mirror is the wrong shape for seeing through the squarish rear screen. (The overtaking mirror is too small and

Everyman Report

Lada's cut-price charms that won over DRIVE's full-time testers didn't cut much ice with the Everyman amateurs: they all voted it firmly into last place.

'Sluggish, hard to corner, I didn't have a clue how to work the heater, bad seats, dashboard needs a revamp, and the car is boxy'—Glenn isn't going to buy a Lada.

James began with a kind word for the Russian: 'The driver's visibility is good.' Nevertheless, he panned its performance, reverse gear and, strangely, its brakes.

David hated everything, bar the seat belts, accommodation and gearchange. 'The noise was terrible, seats uncomfortable, steering vague and heavy, brakes dead, and I couldn't fathom the heater. I'd compare this to a Ford Cortina . . . Mk1.'

Joan damned with faint praise: 'It certainly compares with the Cortina Mk1—but I wouldn't say badly. The driving position and accommodation were both good, but it wasn't very comfortable, the seat belts and heater were difficult to use, and I couldn't find reverse. Cornering was an effort—you need a man's muscles for this car.'

badly placed: the quarterlight's pillar obstructs the view.)

Having four doors is wonderful at this price—but there are drawbacks: there are no childproof latches at the rear, and all doors need a firm slam to shut . . . just like those of the old Fiat 124.

There's a well-fitted carpet, but the seats are plastic-covered. A Lada 1200 owner would, however,

Lada 1300ES



THE IMPORTANCE OF BEING EARNEST

The moral of the Lada 1300 story is: if you're looking for a revolution, don't look to the USSR. This—give or take an engine, some strengthening and suspension modifications to suit Red roads—remains a Fiat 124 by another name.

But, that said, the Fiat 124 was the Car of the Year of 1967, and there haven't really been any revolutions in orthodox (front-engine/rear-drive) car design since then. So, if what you want is a new *real* car—four doors and an *actual* boot—for the price of a secondhand Ford Escort, the only question is: is the Lada 1300ES—with its better trim and slightly greater power—worth £280 more than its 1200 sister?

How it goes

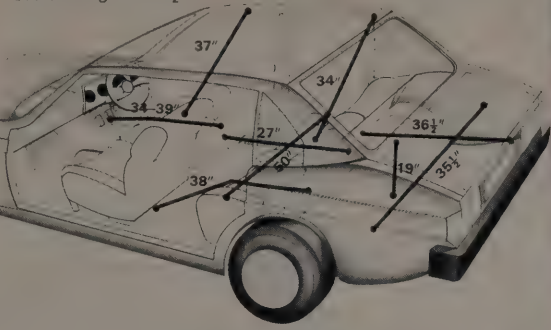
From the word go, you can tell that the comrades at Lada's immense Togliatti factory—

possibly the biggest car-plant in the world—have worked hard to improve the Lada 1300 over its 1200 and 1500 predecessors. The car starts well and warms up without any show of temperament—the choke can be pushed in after less than a mile. The hesitation that plagued previous Ladas tested by DRIVE has been eliminated.

What the car lacks in sophistication, it makes up for in honest endeavour—and nowhere is this better characterised than in the engine compartment. At a moderate 4000rpm—60mph in top gear—the best description for it is 'uncouth', but it will sail on gamely to its 6500rpm maximum. The overall gearing is comfortably suited to British speed limits.

There is always a temptation to weigh up everything the Lada 1300 does in terms of its price, but, leaving that price-tag aside, and measuring the car against 1300cc rivals such as Ford's

kerb weight 19½cwt
overall length 13ft 4in
overall width 5ft 3½in
overall height 4ft 6½in



be pleased to find that the front cushions of the 1300 are lower, softer and give a feeling of more security and support, not to mention better legroom.

Taller drivers may wish for even more legroom, but a curious design oversight means that the inertia-reel seatbelt drums restrict the front seats' rearward movement. However, there is enough adjustment in the squab to produce a comfortable driving position for most, even on long journeys.

General accommodation is the equal of most of the Lada's European rivals, but the rear seat is especially kind to the less agile, with its high cushion and good support—although the wheelarches do intrude slightly. Interior oddments space is restricted: the new console's shallow tray doesn't help much, but the fascia glovebox is deceptively commodious. There are three ashtrays (two back, one front), a standard cigarette lighter and two courtesy lamps—one in each centre pillar.

There's another lamp in the good-sized, regular-shaped boot. Filling the space, however, could be fiddly through the boot's rather restricted aperture, and the lid needs a key every time (unlike that of the big-brother Lada 1500—a silly change).

Wind hiss from the boxy body is aggravated by the fact that the windows seem to lower themselves slightly as the car goes along. Swivelling quarterlights may add to the problem, but their benefits in a heatwave will quickly outweigh their disadvantages. They can also be used to alleviate the winter problem of stuffiness caused by the crude heater.

There's no choice between screen vents and car heat: it's all or nothing. The driver also gets more heat than his passengers at lower settings—a formula for domestic friction—and, just when you think everything is closed down, you find draughts sneaking in through the footwell ducts. But, with a standard heated rear screen, it does make up a very effective package for extreme conditions, as might be expected...

The safety specification includes

a laminated windscreen, rear foglamps and well-fitting, buckleless seatbelts. The roof is well-padded, but the top screen-rail is unyielding—a great pity—and the whole safety package shows its age with a steering assembly and fuel tank that are more vulnerable than Fiat designers would consider acceptable in 1978 cars.

Living together

The old Fiat 124, with its brittle paintwork and half-hearted underseal, never fared well in Britain's cold, damp climate. The

Price £2036
on the road £2148
Parts/repairs (inc VAT, fitting time in brackets)
clutch £24.90 (3hr)
exhaust £27.43 (2hr)
headlamp unit £11.34 (30min)
front bumper £14.15 (48min)
laminated windscreen £41.18 (1hr)
oil filter and points £4.86 (25min)
major service—6000 miles (2hr 42min)
Loss of value £118 per year
0.98p per mile
Total depreciation £429 per year
3.57p per mile
Running costs £624 per year
5.20p per mile

Lada, on the other hand, has a lot worse to contend with in its native country, and the Soviets have added structural reinforcement—a thicker floorpan and tougher suspension mounts. The latest cars are also under-sprayed with pvc and petroleum wax—an extra that, at the price, looks impressive but doesn't appear to penetrate into the odd corners and recesses where the rust-bug loves to breed.

Paintwork is uniform and well polished, but more chrome plating is used than is customary these days on Western cars—hub caps and lamp surrounds, for example. There is, however, less frivolous bright-work to polish than on the Lada 1500.

A straightforward underbonnet layout and the interchangeability of many Fiat parts help offset the fact that there are only 175 Lada dealers in the UK. And the car is built for survival when the going gets rough: you can set the distributor to suit differing petrol octane ratings, there is a primer for the fuel pump to spare the starter in cold weather, and you

can laugh at the memory of broken cables with the—albeit less-than-smooth—rod throttle-linkage and hydraulic clutch.

DIY enthusiasts will appreciate the full satchel of tools, including a tyre pump and starting handle, and the detailed (if oddly worded) owner's handbook. The electrics have particularly generous capacities and, although alternator and starter-motor access is restricted, other routine service items are easy to get at.

There's a jack that works well, fitting into an obvious jackpoint

Mazda 323/1300



EASTERN BONNETS, WESTERN APPROACHES

Mention Mazda, and most people in Britain will think of light bulbs. Motor-minded folk might also remember a largely unsuccessful range of Japanese rotary-engined cars. So, with a start like that, you can see why Toyo Kogyo, maker of the typically-European Mazda 323, has an uphill sales battle on its hands...

The 323 is a hatchback in the Vauxhall Chevette mould, notable for its practicality and packaging rather than its mechanical innovation, and aimed at beating the West at its own game.

Read on for the latest score:

How it goes

The 323's advantages over the two other cars in DRIVE's 1300 set are summed up by the performance and fuel consumption figures overpage: it will go farther for less—and do it faster.

The first flaw in this Eastern

to save you getting your knees wet in bad weather. The fuel tank is easy to fill to the brim, but care has to be taken in securing its threaded cap.

Lada buyers don't have to live in terror of depreciation, either: contrary to what the pessimists predicted, Ladas, unlike the products of some other Eastern bloc countries, don't lose their value any faster than European counterparts. And there's similar warranty protection, too.

It's easy for motoring buffs to be dismissive about the Lada's dated styling and road manners, but the hard facts are that, at £600 less than most of its rivals in equivalent trim, this well-equipped car demands serious consideration by hard-pressed family-car buyers.

The £280 price-difference over the 1300's drab but still-sensible 1200 sister is, DRIVE's testers believe, money well spent, and in some respects the car performs better than some European and Japanese rivals costing a lot more.

Its biggest impediment is its fuel thirst: you save £600, but lose 6mpg—a fact that no economy buyer can lightly disregard.

promise shows in the mornings of slow-rising suns: the 323 needs part-choke for several miles from cold, and the unrefined carburettor runs with a hint of unevenness—a tiresome trait in stop-start town driving.

On the move, however, the power department proves to be very satisfactory. Mazda was already blessed with a thoroughly modern engine in two sizes to drop into this new model. With the wisdom of previous experience, DRIVE decided that no startling mpg-advantage would be gained from going for the 1000cc version, and opted for the 1300—more sensible for a car that is no featherweight.

The bigger engine gives a highly respectable performance, with economy that no equivalent 1300 can at present better. It certainly outstrips both the Ford Popular and Lada 1300, both in and through the gears, all the way up to a top speed of 89mph.

Complaints begin with a rather

undignified roughness in low-speed pull-away, and again at mid-range cruising speeds—a sad fact on the testcar, since the infuriating optimism of the speedometer meant that a law-abiding driver would never have broken the 50–65mph drone barrier. Things became more subdued at a perfectly legal 70 (75mph indicated).

Despite this, the 323 conveys a feeling of refinement through the precision of its controls: nicely-placed pedals and a well-engineered gearshift enable the driver to operate smartly and effortlessly, with enough power on tap to produce a healthy burst of acceleration. Third gear proves particularly adept, taking the car past the legal limit without stressing the engine; but the lazy-man's top-gear overtaking pull from 30–50mph is still on offer at a good 11.2sec.

Despite handbook assurances, DRIVE's test car pinked on 2-star petrol; 3-star proved more digestible. Filling the tank to its brim is a tedious business, and the cap that lurks behind its locking flap is an unlikeable specimen.

But the picture gets better the further you drive from the petrol pump: a long-trip figure of 40mpg is attainable without special consideration, and 32mpg on the motorway compares well with rivals. Anyone changing from a British 1300—other than a recent Vauxhall Chevette or Austin Allegro—should reap a good 3mpg benefit.

The Mazda's road manners are acceptable in a non-sporty, unpretentious way. Ride is good, and cornering competent (in contrast to the Chevette, for example, which puts its priorities the other way round).

Perhaps it's the 323's steering that undermines its handling: while European designers demand rack-and-pinion systems, the Japanese stay faithful to the recirculating ball—and pay a price in vague response and lack of road 'feel'. Their loyalty may be due to its inherent lightness, but the uncertainty felt on a windy day left DRIVE's testers unconverted.

Nonetheless, it must be said

that the Mazda's cornering behaviour is safe . . . if rather less fun than that of other hatchbacks. The Japanese Bridgestone radial-ply tyres grip well, and the rear axle holds its line.

The suspension soaks up bumps, especially with a full load on board, giving ride comfort that leaves Datsuns and Toyotas floundering. Lightly laden, however, it is too sudden and not nearly as well damped as Western all-independent cars such as the Renault 5.

DRIVE's test pilots were rather sceptical at the sight of the small front discs used to stop the Mazda, but familiarity breeds respect: with hard pads and standard servo, they not only feel pleasant in normal use but also provide a full-blooded crash-stop. Fade tests, too, produced only mild symptoms of stress. If anything, pedal pressures are light.

The 323's tight turning circle and clear all-round vision make

Everyman Report

'Always ask for Mazda,' said the Everyman team. The car's easy-to-learn, conventional traits won friends quickly—a good selling point for a new car.

Glenn's only reservation was its slowness. 'If it had a larger engine, it'd be lovely.' He liked the seats, low wind noise, flexible performance, positive steering and easy gear change. 'Yes, please,' said Glenn.

James, too, found it 'very difficult to think of an area in which this car is lacking. It is the best one in the whole group.'

David was patriotic to the end, making the Mazda and Popular neck and neck. 'With its better ride and its hatchback, however, it has to be the Mazda. It was fairly noisy, though, and looked even more plasticky than Japanese cars usually do—but comfortable.'

Joan found the brakes a bit 'sharp', and she wisely noted that the engine's real noise problem came in at 60mph—a cruising drawback. But she was another instant convert. 'Faults? I'd have to think hard to find any.'

it popular with town drivers, although the testcar's jerky carburettor response marred its manners. Wind and tyre noise is very well suppressed.

Inside story

Any resemblance between the Mazda 323 and Chrysler's Sunbeam is not entirely coincidental: both represent an attempt to produce a family-sized hatchback with conventional mechanicals. And the 323 is particularly successful in finding so much room within a 13ft-long package.

It has taken the Japanese some time to come to terms with the build and aesthetic requirements of the typical European, but Toyo Kogyo hasn't missed its chance with this new model. It is the most 'British' of all the Oriental cars that DRIVE has tested.

Inside, everything comes naturally to hand in airy, business-like surroundings. Instrumentation is clear and tidy, with a neat column

Price £2599
on the road £2700
Parts/repairs (inc VAT;
fitting times in brackets)
clutch £48.11 (2hr 12min)
exhaust £49.25 (1hr 24min)
headlamp unit £5.30 (18min)
front bumper £38.98 (18min)
laminated windscreen £42.66
(2hr 36min)
oil filter and points £5.20 (30min)
major service—6000 miles (2hr)
Loss of value not yet known
Total depreciation not yet known
Running costs £571 per year
4.76p per mile

of telltales between the two major dials—though there are no warnings for low fuel-level or choke. Wipers are two-speed and could do with an intermittent-wipe setting. Many drivers will heave a sigh of relief at finding the horn button on the wheel-boss again, after all the fancy places that the car stylists have tried putting it.

The driver has ample legroom and the cloth seats give sensible support (notwithstanding a lack of lateral shaping). Although headroom is tight, rear legroom is unusually generous. Rear occupants on the firm but well-proportioned bench sit higher than those in front, so forward

vision is less impeded by the high-backed front seats than might be expected.

Getting in and out of the three-door model calls for some agility, however, and having to reset the front seats' rake every time is infuriating. (The five-door alternative will be attractive to many.) The tailgate works with strut-assisted ease, but leaves a high lip to clear with heavy loads.

The conversion from saloon to cargo carrier is achieved with one-handed ease—simply flick a catch on the rear-seat squab and remove a well-made rear parcels shelf. The enlarged area is flat (and carpeted), but poor headroom affects load-space.

Oddments space is generous and thoughtfully planned. There's even a secret-document hidey-hole—but we won't say where, or it wouldn't be secret.

The heater gives a good flow of warmth to the feet but its demisting powers are feeble unless most of the blast is diverted to the screen. Fortunately the booster fan is quiet, although not linked to the fresh-air vents (which are nevertheless reasonably efficient). Opening a window appreciably increases air flow—but don't open a front one, for the absence of roof gutters means that the rain comes in. The tailgate wash/wipe and heating system won the DRIVE testers' compliment of 'best yet'.

On the safety front, inertia-reel seatbelts are comfortable and a laminated screen is standard. It is easy to see and be seen, with deep glass areas and wrap-around lamps. The interior rooflamp flutters (intentionally?) if the doors aren't properly shut. Roof padding is good, but could be better above the windscreen.

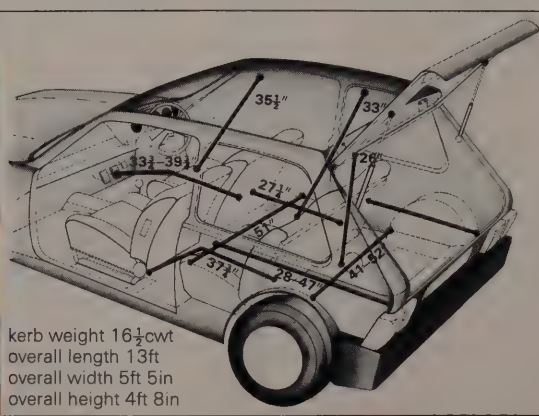
Living together

Smart yet unostentatious, the 323 appealed to the women who rode in it during DRIVE's test. The tartan fabric seats (Clan MacMazda?) are practical, and the rest of the interior is very 'wipeable'—helpful to mums who have to keep both children and car clean. Nylon carpets that entangle hairs and grass will, however, yield only to a vacuum cleaner.

On the outside, the only hindrance to easy cleaning were harsh-edged numberplate attachments that could inflict a nasty gash on the unwary cleaner.

Mazda has tried hard from the design stage to avoid corrosion—vulnerable areas are galvanised, metal edges are sealed and layers of plastic between every metal-to-metal join discourage the rust that might normally occur when, for example, chrome strip meets paintwork.

It's all good stuff, but there is bad news about basics: the plating on the sturdy bumpers is poor,



kerb weight 16½cwt
overall length 13ft
overall width 5ft 5in
overall height 4ft 8in

underbody sealant is scanty, and there are a few mudtraps and vulnerable-looking seams.

Reliability promises to live up to the Japanese legend, with a trusty hydraulic clutch and electrical connections reduced to a mere 33. There's a useful set of tools, too, including touch-up paint, and conventional engineering has been intelligently exploited to make just about everything underbonnet easy to reach.

With Mazda dealers thin on the ground, the handbook could do

with being more helpful: local repairers, as well as home mechanics, would then have few qualms about 'having a go'.

The de luxe version of the 323 makes more sense than the up-market versions of other badges: its trim remains practical rather than cosmetic, and its extra equipment—the clock, dipping rearview mirror, rear parcels shelf and the like—is desirable, not just gimmicky.

Depreciation cannot as yet be assessed, but insurance is costly

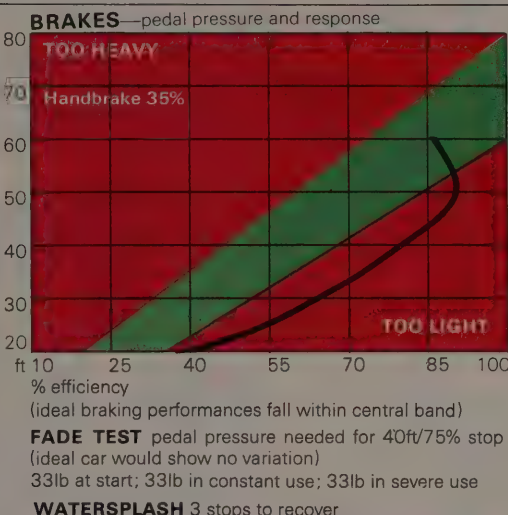
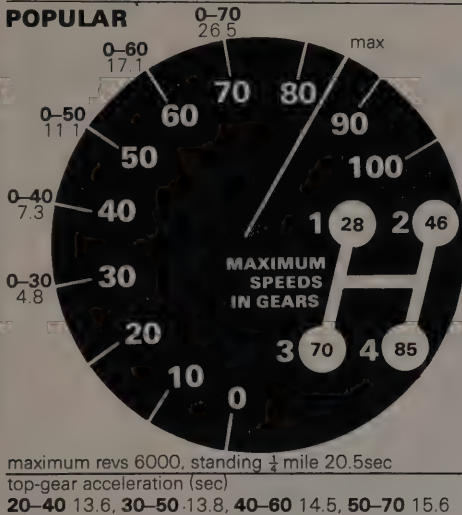
—both the Chevette and the Escort are two groups lower.

The three-door price for the 323 is currently on a par with the GL versions of both the Sunbeam and the Chevette, but it's in the five-door department that the Mazda comes into its own: a VW Golf costs £350 more, and even a Renault 14 will add an extra £230 to your overdraft.

Like the Honda Accord, but unlike most Rising Sun imports, the Mazda 323 has more than

plain reliability going for it. Without being sophisticated, it is a thoroughly likeable family car in the modern idiom. It is lively and economical, with competent cornering manners and reasonable comforts. It ought to be quieter, but, in other respects, it is nicer to live with than most Japanese rivals.

It will be interesting to see if its sales figures reflect its superiority, or if the well-established Japanese giants will still manage to dim Mazda's light.



FUEL 4-star/97 octane
overall consumption 33mpg;
effective tank range 275 miles

Normal range of consumptions

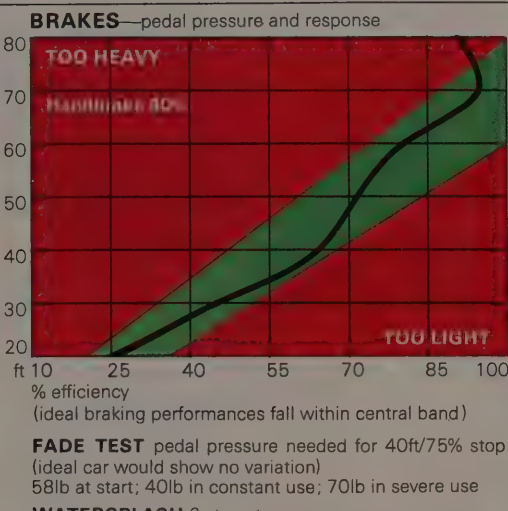
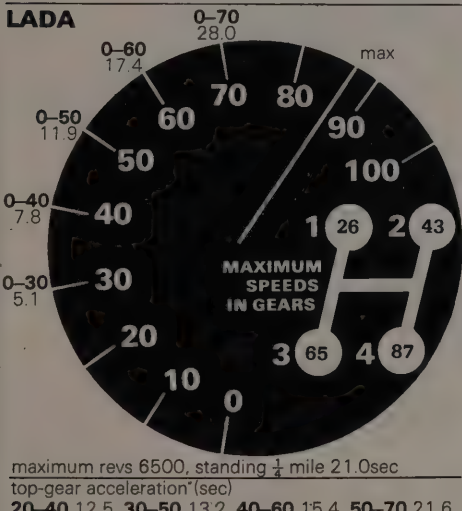
motorway—70mph cruising	26mpg
hard driving, heavy traffic	29½mpg
short-journey suburban	30mpg
mixed roads—brisk—50mph cruising	33½mpg
quiet rural—40mph cruising	39½mpg

HILL TESTS maximum gradients for:

handbrake	1 in 3
hill start	1 in 3
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	interior—well padded
front seats—head restraints	windscreen—laminated
front seats—secure mounts	door latches—crashproof
front belts—effective	door latches—childproof
front belts—convenient	tank and filler—spillproof
rear belts—fitted	brakes—fail safe
hazard warning—fitted	brakes—load sensitive
standard feature	factory-fitted extra



FUEL 3-star/94 octane
overall consumption 28mpg;
effective tank range 225 miles

Normal range of consumptions

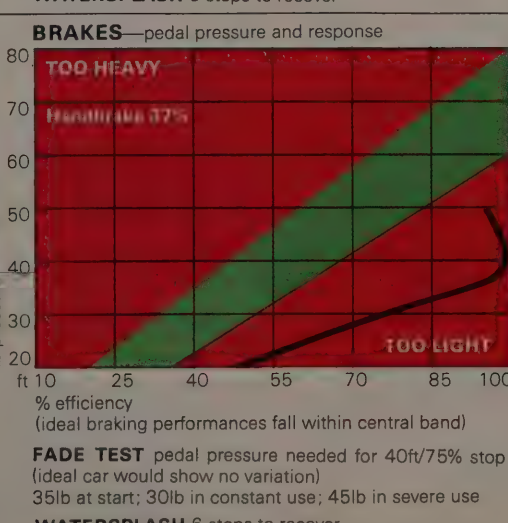
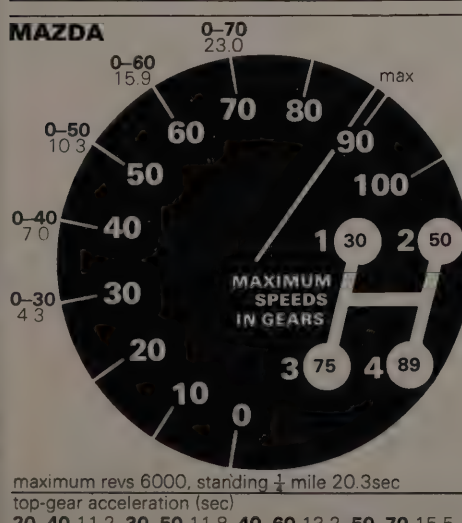
short-journey suburban	23½mpg
hard driving, heavy traffic	24mpg
motorway—70mph cruising	24mpg
mixed roads—brisk—50mph cruising	30mpg
quiet rural—40mph cruising	34mpg

HILL TESTS maximum gradients for:

handbrake	1 in 3
hill start	1 in 3
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	interior—well padded
front seats—head restraints	windscreen—laminated
front seats—secure mounts	door latches—crashproof
front belts—effective	door latches—childproof
front belts—convenient	tank and filler—spillproof
rear belts—fitted	brakes—fail safe
hazard warning—fitted	brakes—load sensitive
standard feature	factory-fitted extra



FUEL 3-star/94 octane
overall consumption 36½mpg;
effective tank range 250 miles

Normal range of consumptions

short-journey suburban	29mpg
hard driving, heavy traffic	30mpg
motorway—70mph cruising	32mpg
mixed roads—brisk—50mph cruising	37½mpg
quiet rural—40mph cruising	44½mpg

HILL TESTS maximum gradients for:

handbrake	1 in 3
hill start	1 in 4
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	interior—well padded
front seats—head restraints	windscreen—laminated
front seats—secure mounts	door latches—crashproof
front belts—effective	door latches—childproof
front belts—convenient	tank and filler—spillproof
rear belts—fitted	brakes—fail safe
hazard warning—fitted	brakes—load sensitive
standard feature	factory-fitted extra

Mr Mrs/Miss

Address

Daytime Telephone No Post Code

Membership No. (or write non-member)

Occupation

Employer's business

When would you like cover to commence? day month year

On that date (a) How old will you be? yrs

(b) How long will you have been resident in the UK? yrs

(c) How long will you have held a full UK driving licence? yrs

(d) How many years No Claim Discount will you have earned in your own right? yrs

Name of your present Insurance Company

FOR OFFICE USE ONLY

About your car

Make and model of car including details of modifications

Engine cc Year of manufacture 19 Value £

When do you use your car? *Please delete the word that does not apply

In addition to private use, will the car be used for:

(a) Driving to work on three or more days a week? YES NO*

If yes, name city, town or suburb where you work

Is your place of work more than 10 miles from your home? YES NO*

(b) Business use by yourself only? YES/NO*

(c) Business use by any other person? YES/NO*

(d) Commercial travelling? YES/NO*

(e) What is your estimated annual mileage? miles

Have you or any other person who will drive this car:

(a) Been convicted of any driving offence other than parking? YES/NO*

(b) Been involved in any accident in the last five years? YES/NO*

(c) Suffer from any physical disability or infirmity e.g. heart disease etc? YES/NO*

If you have answered yes to 'a', 'b' or 'c' please give details on separate sheet.

Please indicate (✓) who will drive the vehicle:

(a) Yourself only ☐

(b) Yourself and wife/husband only ☐

(c) Yourself and one named driver only ☐

(d) Any licensed driver ☐

In the case of (b) and (c) please give details of other driver

or in the case of (d) details of youngest known driver. Age

Length full UK Driving Licence held? years

What cover do you want?

Please tick the type of cover you require:

Comprehensive ☐ Third Party Fire & Theft ☐ Third Party Only ☐

Do you wish to reduce the premium by bearing up to £25, £35 or £50 of the cost of any damage to your car? YES/NO*

If yes, please write your choice here

Registered Office: Farnum House Basingstoke Hants RG21 2EA Regd No 912191 England

Please send details of the other special AA policies I have ticked:

☐ Homesure ☐ Leisureplan for caravan, camping etc. ☐ Travel

☐ Regular savings plan ☐ Life cover for family man or woman

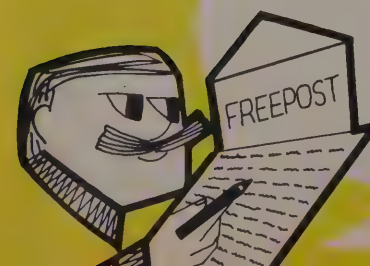
☐ Mortgage protection ☐ Retirement plan for self-employed

☐ Income in ill-health

Just fill in and snip out this checklist — then post it free, in an unstamped envelope addressed to:

**AA Insurance Services Ltd,
FREEPOST, Newcastle on Tyne,
NE99 2RP.**

Or take it to your nearest AA office.



Let us give your motor insurance a cost/cover check up. It's a free service!

It's so easy to make a mistake when arranging your motor insurance. Trying to balance the best cover against the hefty premiums you have to pay today, you can make the wrong decision without even knowing it — until it's too late. The AA want you to be sure you have the best-value policy for your own needs, and we do this free.

The time to check your existing policy is now. Don't wait until you need it. The way to check is simple — just fill in the form on the left and free-post it back to the AA.

Remember too, you may be eligible for these special discounts...

If only you and your wife are driving the car, we can save you up to 20%.

If you are over 51, you can obtain at least a 10% discount. If your car is over 6 years old you can get a further 10% discount.

If you are willing to bear the first £25, £35 or even £50 of any damage bill, we can save you up to 20%.

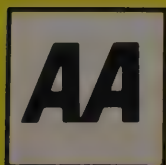
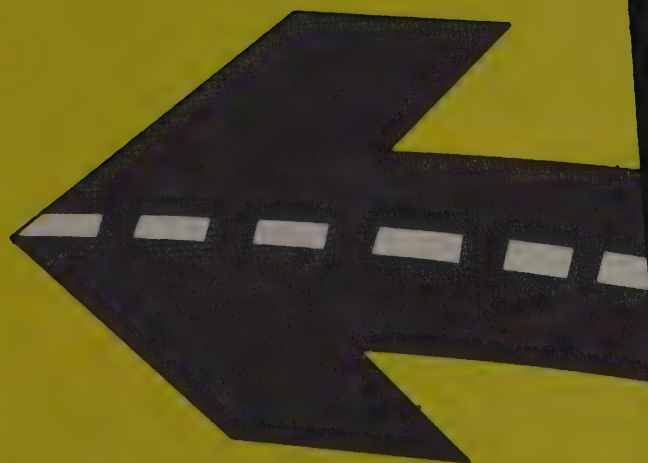
We can also get you substantial discounts for certain occupations. You can even pay your premiums by easy instalments if you wish.

Get details of other extra-value AA policies too

AA Insurance Services offer members a free insurance broking service for all types of policy. You can cover your house and its contents; all your leisuretime activities — caravanning, camping and sailing etc; your holiday and business travel. We have also arranged low-cost life assurance and high-return regular savings policies on special terms. For details, tick the appropriate box on the checklist left, before you send it off.



**Check your
motor
insurance
cost
before
proceeding**



**INSURANCE
SERVICES**



Just what can you get in 1000cc-size these days? Quite a variety of things, in fact, even though most manufacturers have decided that true economy lies in cars just that bit bigger. DRIVE put three pint-sized litres through their paces—the veteran Mini, the long-running Renault 5 and the new Datsun Cherry. We know

what we liked; but DRIVE's four-strong Everyman panel—salesman and Austin-Healey Sprite driver Glenn Shipton, 22, pensioner James Winchester, who owns a Saab 96, company director and Ford Granada man David Everest, 30, and Ford-Escort-driving housewife Joan Phillips, 25—were less ready to agree—with us or with each other

Renault 5TL



THE FAMOUS FIVE PLAYS ON... AND ON

In these uni-design days, when you wouldn't be at all surprised to find that even the proverbial bandwagon had been redesigned as a hatchback, it's fitting that one of the few super-minis you *can* tell from any other is French—the Renault 5. Despite being one of the first small cars to be designed with an estate-style rear, and despite paying the price of having to watch many other designers pay it the sincerest form, of flattery, the Renault 5 remains one of the few super-minis with a look all its own, both in styling and in mechanicals. Is this because its design—advanced in 1973—has been left behind? Or was it so far ahead that nobody else has been able to catch up?

How it goes

The French like to keep things practical—but they're not averse to being different. Accordingly, the 5's 956cc engine is installed lengthways, as opposed to the transverse fashion, and with the gearbox way out at the front. But it works, and, with five main bearings, it works smoothly.

Power output is average for its class, but kerb weight is somewhat higher than most. Predictably, acceleration through the gears is a shade slower than an equivalent-powered Ford Fiesta, and similar to the basic VW Polo, with its lower-rated engine.

The 5TL's strength lies in top-

gear pullaway, giving the lazy driver an overtaking burst from 30–50mph that will almost match the nippy, noisier Mini 1000, and will leave the Datsun Cherry way behind. Its excellent engineering also makes it sweet to drive—with a clutch and accelerator action that flatters the clumsy or inexperienced—and it moves happily onwards from 20mph in top gear.

Early 5s had petrol-thirst problems, but every TL that DRIVE has tested since 1974 has been good for 42mpg, improving to 50mpg in quiet rural driving. This latest car, however, has suffered a cut of 2½mpg all round—a loss that may partly be caused by lower overall gearing and a different carburettor. Certainly it is at a disadvantage against the Mini, and only just better than the Cherry, although it is significantly more frugal than its arch-rival the Peugeot 104. The 5 also needs 4-star fuel, so the Cherry's and Mini's 2-star gives them a further slight advantage in current-cost terms. (The 5's tank capacity has shrunk, too, but it remains an easy filler.)

When DRIVE first tested a Renault 5, we wondered why the steering should be so weighty on such a small car. The latest TLs are shod with narrower tyres, taking some of the 'fight' out of steering response, but it remains a stodgy performer when hustled through the bends. As might be expected in a French car, it rolls on corners, and the roll gets worse

with a heavier complement of passengers and luggage; two-up, it corners with less fuss, and the well-shaped front seats save occupants from its unpleasant effects. Rear-seat passengers can only hope for a considerate driver on twisty country roads.

There is, however, nothing *dangerous* about the 5's cornering: it holds a steady line no matter how hard it is pressed, and feels marvellously stable on a windy motorway. It's just . . . well, cumbersome.

Where the 5 surpasses every rival—new or old—is in the unflurried levelness of its straight-ahead ride. In this respect it is still

the small car by which all others must be judged. It relegates the Fiat 127 and the Polo to mere competence, and the Mini, Cherry, and even the Fiesta, feel distinctly inferior.

The snag of having a gearbox in the car's nose is that it's a long way to the gear lever. Renault's solution is a push-pull rod sprouting from the fascia, which works admirably once you've tuned-in to its undeniable logic. There is also now a standardised floor-change lever, but it demands devious linkage and costs £32 more. Nevertheless, it moves conventionally, and is equally cooperative, if a trifle clunky,

Measuring out the LITRES



around the gate. Like everything on this car, it works best if it is not rushed.

There's quite a lot of rumble on all but the smoothest roads, and despite impeccable mechanical manners at low speeds the engine and exhaust notes become uncomfortably intrusive at around 60mph. Wind sealing, on the other hand, is good, and despite one or two creaks inside (including one from the new-style seat adjusters), DRIVE's testcar generally felt as though it had been well put together. There were no tailgate rattles, for example.

Brakes have no servo-assistance, but are efficient in an emergency,

if a little heavy, especially when fade sets in.

Inside story

Like much of French car design, the control layout of the 5TL improves with familiarity. It is hardly a masterpiece of ergonomics, but, given time, the confusion that bothers new drivers is overcome. The instruments are legible enough, and the telltale lights are intelligently symbol-marked—DRIVE's testers especially appreciated those for handbrake and choke when using the car in town. The speedometer, however, read 5mph fast at 70mph, and the mileage

Price £2404
on the road £2494
Parts/repairs (inc VAT):
fitting time in brackets)
clutch £27.43 (6hr 30min)
exhaust £38.36 (1hr 42min)
headlamp unit £24.62 (30min)
front bumper £44.39 (1hr)
laminated windscreen £48.28 (1hr 18min)
oil filter and points £3.75 (1hr)
major service—10,000 miles (2hr 30min)
Loss of value £104 per year
0.87p per mile
Total depreciation £530 per year
4.42p per mile
Running costs £522 per year
4.35p per mile

recorder would have improved fuel consumption by 2mpg... had we believed it.

Thanks to the tall roof line, the seating is high and commanding—you don't have to lean back, as you must in some small cars. Rearward seat adjustment has been extended, and even fairly tall drivers can now be comfortable at the wheel. Some testers thought the seats too small and lacking in shoulder height and thigh support; but generally they drew praise (although cloth upholstery is a £32 extra).

Rear-seat entry is helped by the two wide doors and the high roof, but legroom in the back is inferior to that of later rivals. Passengers will, however, feel more relaxed than the tape measure suggests because of the erect posture and craftily-contrived seat support. Latest TLs also have easier-to-use interior door-releases, and front seats that will tilt forward even when the doors are shut

(the door armrests on earlier models used to prevent this).

Some may find the TL's trim disappointing—plastic flooring, and lots of painted metal and ugly grommets—and oddments stowage is limited to under-facia trays that get hot with the heater in use. But the Renault's quality is revealed to those who live with it and look more closely.

The rear-end arrangements look and work better than those of the opposition, with a removable rear parcels shelf that you don't have to leave at home when the back seat is down, and an easy-acting, full-length tailgate. Luggage height, in two-seater or four-seater guise, is greater than in most hatchbacks.

The quilted rail facing the front-seat passenger serves as an excellent handwarmer, and floor heat on that side, too, is generous; but it's noticeably directed towards the French driver—ie, away from the *British* driver—and none at all moves rearwards at foot level. The heater slide control is difficult to set, but the booster fan is reasonably quiet on its slower setting.

The single, central fresh-air vent is not fan-boosted, but the blast is quite good and well-diffused. In winter, the trick is to point the pair of direction levers 'cross-eyed' to obtain a cool head without a direct breeze.

Windscreen demisting is good, and the tailgate is electrically heated—but without a wiper the rear screen gets filthy in bad weather. All-round vision is a strong point, although the little windscreen wiper switch on the steering column sometimes gets operated by mistake when using the indicators.

Living together

Renault spares seem expensive, but the 5 has earned an excellent reputation for reliability. A casual glance under the bonnet may send a chill down the spine of a DIY type, but nothing in the way of routine servicing is impossible—just tortuous. Major attention is demanded at 10,000-mile intervals, but, cautiously, Renault still specifies oil changes every 5000 miles. Most level

checks can be made at a glance, although the dipstick is difficult to relocate.

Repair operations, on the other hand, can be time-consuming—therefore costly—and insurance is a group higher than equivalent British cars. A diagnostic socket is provided for Renault agents to carry out instant engine checks, but the handyman will find most of the settings in the handbook—though little technical advice. He will have to buy his own tools, including a few special ones, for only a jack and a wheelbrace-cum-winder arrive with the car. Wheel-changing is easy, and, with the jack stowed under the bonnet

Everyman Report

The Renault won on points: more of the Everyman team liked it best more of the time. But it lost on some points, too.

'Performance feels good,' said Glenn, 'but I think it's just too small to feel safe. It misses carpets, and there is nowhere to rest your left foot—I had to stick mine under the clutch.'

James felt that the 5TL was going faster than it was—and he wasn't trying to be complimentary. 'Switches were idiosyncratic—I didn't like this Renault at all.'

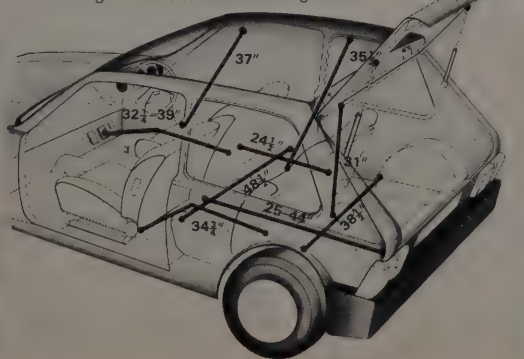
David was the only one to complain of the typically French roll on corners: 'If it didn't have such a good seat you'd be thrown around. I also had to lean forward in the seat to reach some of the controls.'

Joan, in direct opposition to James, proclaimed it lively—'you seem to be travelling slower than you are'. She fell for the exceptionally good front seats: 'It's one of those cars that would grow on me—but I don't think I'd buy one instead of a Mini.'

with the spare, the holiday luggage doesn't have to come out when there's a puncture.

Both in initial cost and depreciation terms, the Renault 5 is a sound if unspectacular proposition. Despite signs of sloppy paint finish round the edges, and a few underseal misses, it resists rust well. It's a pity Renault isn't more careful about the details, for the

kerb weight 15½cwt overall width 5ft
overall length 11ft 6in overall height 4ft 7in



5's basic design and clean lines, free of bright adornment or exposed seams, help it avoid premature decay.

The excellent plastic bumper shields, and technical details such as a brake-apportioning valve—a gadget to ensure skid-free stops whatever the load—and instant beam trimmers on the headlamps, are evidence of the sheer professionalism of the 5's creators—and the unsung qualities that the casual observer may overlook when he complains of the interior's austerity.

Nevertheless, plastic flooring and vinyl seats *are* austere, even though they clean quickly . . . while the next-drive neighbour is struggling to beat fluffy carpets and pick out the dog hairs from

cloth seats. The smooth, unembellished coachwork and wheels with proper hubcaps—a rare feature these days—are also a boon at bathtime.

The Renault 5, with its compact size, pert looks and practicality, has been a trend-setter from birth, and, despite the arrival of similar-sized imitators, it *still* looks different and goes differently. Sedate rather than agile, it makes its occupants feel cosseted in a way that none of the other super-minis do, despite its restricted interior and bare trim.

It all goes to show that comfort can't be measured in cubic inches or length of pile. And it proves, too, that cheap cars don't have to be nasty cars.

Vive la difference!

of engine to propel a car that weighs only 12cwt. But the Mini now comes in four powers: there's still the original 850cc that first moved this motoring revolution; you can also buy an 1100cc power unit in Clubman livery, a racy 1275cc GT and the 1litre version that DRIVE chose. With the benefit of reclining seats, this last represents the cheap way to get most of the comforts of the Clubman with only a very slight performance penalty.

The Mini 1000 takes 19.7sec to reach 60mph from a standing start, but a 30–50mph top-gear overtaking burst in 12.6sec is respectable. If you have the best part of a minute to spare, and a test track, you can reach a thrashy maximum of 79mph.

The real concern with a Mini is that equally-rated engines from the same stable can vary so much. Depending on your luck, you can have a fast one or a slow one, a not-so-smooth or an even-more-not-so-smooth. . . . Obviously, there are quality-control problems on the assembly line.

A three-main-bearing unit with such a long stroke, while not unique even in these five-main-bearing days, is difficult to make smooth. Leyland hasn't had much success, and DRIVE's car showed its age immediately the driving got hard: the higher the revs, the louder the protestations. Perhaps it isn't as bad as it used to be, but a new generation of minis make the Mini sound uncouth. At the other end of the rev scale, the car will pull away in top gear at speeds below 30mph—albeit with a shudder in the 25–30mph range.

Now for the good news: when petrol was five-bob a 4-star gallon, the Mini's parsimony was a novelty and a talking point, rather than a necessity. Today, it has real relevance.

Legend has it that on the right day in the right conditions, with a wind at its back, the new Mini's miles to the 2-star gallon will reach telephone numbers. The meaner truth is a very creditable 42½mpg, and even motorway-limit cruising will leave it on the right side of 30mpg. Again, though, it's worth pointing out that this is only a shade better

than more modern rivals. Don't be misled by figures such as 50mpg at 50mph; they're true, but can't be achieved off the test track. Ironically, consumption on the road probably suffers most because the Mini is such fun to drive in a hurry.

Car testers still say that a car 'handles like a Mini' when they are trying to find compliments, and it is easy to understand why it is such a popular first car. Its excellent handling makes it a very safe package for novices.

Nothing can be easier to steer, thanks to a light, quick and accurate rack-and-pinion set-up that enables a driver to find out what is meant by good road 'feel' without experiencing the less-pleasant aspects of front-drive

Everyman Report

The Mini's love-hate image was only confirmed by the Everyman testers—one wholehearted yes, two definite nos, and one nostalgia-filled don't know.

Glenn doesn't like small saloons: 'Like the Renault, the Mini lacks a feeling of security. But this car feels sluggish, too, and it is extremely noisy and uncomfortable,' he complained.

'It may be old-fashioned,' said James, 'but it is quite a good little car, really.' He found it lively, but agreed with Glenn that it was noisy. 'But for those seats, it would be comfortable.'

David hated its 'bouncy ride, awful seats, terrible noise and jokey luggage space. I couldn't drive one—I had to sit so far back I was almost looking out the rear side windows.'

Joan . . . well, Joan loved the Mini. 'I've never driven one before.' She even liked its ride—although it must be pointed out that, in true Mini style, she took great care to drive round road bumps and holes rather than over them!

cars. The steering wheel self-centres without fuss, there's little cornering roll, and the whole machine is proof that you don't need gimmicky spoilers to achieve straight-line stability.

Ride? Ah, yes . . . well, it's as bad as the handling is good. It can be summed up in one word: BUMPY. Rubber-cone suspension is a better bet for the small car than Leyland's otherwise-used Hydro-elastic set-up, but it does let you know that you're driving a small car, as it dives along from crash to thump. Admittedly, the ride won't rattle your teeth, but it does go up and down faster than the bank rate. Indeed, if long hauls are your habit, then the Mini's ride is bad enough to be a reason for buying something else. Most super-minis are way ahead in this department.

The transmission suffers from the same fault as the engine—it's

Mini 1000



ONCE UPON A TIME, LONG AGO . . .

If you can buy a car for peanuts that will carry four people plus luggage at 70mph and get 40mpg—if not *quite* at the same time—why look elsewhere?

Why, indeed? That was the undeniable logic that launched The Amazing Mini in 1959.

Remember the Triumph Herald, Ford's 105E and other British sixties runabouts? The Mighty Mini pummelled them into the showroom floor.

Ford took the Mini to its laboratories, costed it bolt-by-bolt—and gave up. Chrysler struggled to compete with its Imp—dead for years, if never quite buried.

For the best part of its 19 years, the Mini ruled supreme. But the

late seventies has seen the introduction of the super-mini, and the peanuts that you now have to shell out for a Mini 1000 will alarm the prospective buyer with a three-year-old trade-in.

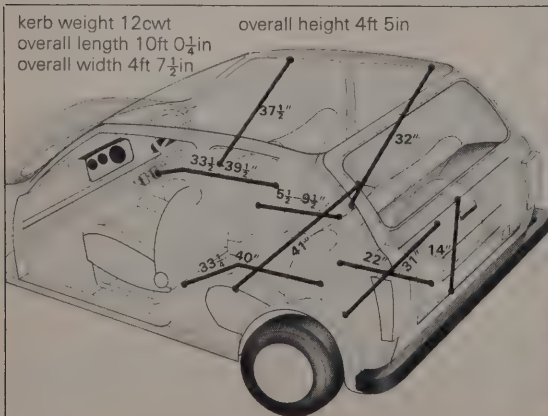
True, the great British titch has matured into a well-equipped little gadabout; but even Leyland is desperate to get a second generation of Minis rolling through the factory gates.

And still the Mini rolls on . . .

How it goes

There's no doubt about it: the Mini is a town car, so starting needs to be quick and easy . . . and is. It retains a choke control that can be let in progressively, and completely within a mile.

Of course, you don't need a lot



too noisy. Put the two together, and the result can be downright unpleasant, drowning out other noise sources, such as rear-seat passengers and the suspension—although with the latter it's a close-run thing.

The gear change is now much more direct, with less of the well-documented Leyland stickiness. Reverse has a lift-up guard *à la* Vauxhall, which should stop owners finding it by mistake. Slick, smooth gear changes are still rare on front-drive cars, and, with its new linkage, the Mini's is not as bad as some. Anyone who remembers early Minis will agree that there is a real and welcome improvement.

Wind and body noise is hard to hear above the rest of the cruising cacophony, but a revised gear linkage and a redesigned silencer have gone some way to preserving owners' eardrums, and the fan has been re-cowled to cut the din (though it would take an electric fan to do the job properly. The engine's noisiness is due partly to its installation and partly its proximity to the driver; bulkhead sound-deadening is fighting a losing battle.

Brakes are still four drums, but, though 'wooden'-feeling, are adequate. Don't even think of a servo—you won't need one. Repeated use doesn't cause much fade, they are remarkably immune to water, and it takes a pedal load of 70lb—about right—to produce an almost-perfect crash stop. All the control pedals really ought to be bigger. Their smallness makes you more aware of the weighty clutch pedal, for example.

As might be expected of a town car, turning is good. A 40ft circle can be described with one whirl of the steering wheel, and neat U-turns can be executed between kerbs just 30ft apart.

Inside story

Messing about with the inside of the Mini calls for a fine judgement between what is 'improvement' and what is the 'destruction of tradition': there are those who say the car has never been the same since it lost its sliding windows for wind-up versions.

Nevertheless, there are some changes that could be improved...

Leyland designed an easy-to-read instrument binnacle—for this, in 1959, much thanks—but then installed it in the middle of the Mini, where sight of it is obscured by the driver's left hand. This does of course have the benefit that when the car is converted to left-hand drive for export it can stay where it is... to be covered by the driver's right hand. It's a pity that it's still there, especially when the posh Clubman variant has a 'real' instrument panel.

A column-mounted stalk for the

wipers and electric washers is a valuable step forward, but it's a pity that the wiper blades aren't that bit longer to refresh the parts of the windscreen that, at present, they just don't reach.

The wobbly rearview mirror is tinted to make amends for not dipping or being big enough, and an outside mirror is standard.

Despite the Mini's smallness, there are still a lot of ladies, and shorter gents, who need a cushion on the low driving seat. True, it has been improved, but it could do with an up-down setting like that of its big sister, the Princess. Standard seats are cloth-covered, hard-wearing and fully reclining.

Even now, nearly 20 years on, one can still only marvel at Alec Issigonis' genius for designing so

Price £2094

on the road £2234

Parts/repairs (inc VAT;

fitting time in brackets)

clutch £31.98 (2hr 9min)

exhaust £16.58 (42min)

headlamp unit £3.12 (27min)

front bumper £4.32 (24min)

laminated windscreen £19.44

(1hr 24min)

oil filter and points £3.00 (18min)

major service—6000 miles (3hr 20min)

Loss of value £112 per year

0.93p per mile

Total depreciation £463 per year

3.86p per mile

Running costs £469 per year

3.90p per mile

much space inside so little a car. Yet, with the benefit of hindsight, he might have done even better with an extra few inches on the wheelbase. Second generation super-minis can find room for people and their luggage; but they are a few inches bigger overall.

Rear-seat kneeroom is just sufficient... if the front occupants considerably refrain from stretching out. If they do get cramped, well—the back seat is still useful for children or shopping.

The latest Mini does have more space in it, but of course many still lament the loss of those useful door pockets from the original design. Oddments space is confined to bins at the rear and the full-stretch fascia shelf. Some would say that the boot is little more than oddments space...

The Mini has no extractor vents but that doesn't daunt the vigorous ventilation from the twin eyeball vents. The heater is a difficult-to-adjust gadget that looks like a second choke. Pulled right out (the 'off' position!), it presents a hazard for unwary knees.

Leyland safety thinking in the Mini is a stop-go affair. For example, the lower screen rail is padded, but there is nothing along the top, and the entire roof is unpadded. The screen is not laminated, and other projections include the heater, radio and the heater hose-clip. On the other hand, inertia-reel seatbelts are in the price, as are radial-ply tyres

and a useful heated rear window.

Living together

Mini rust resistance is too well-documented to require more words. It has not improved. A new Mini could face MoT problems after only four years if left unattended, so buyers are well-advised to make their own arrangements. Seams and welds are the same old sources of corrosion trouble.

The mechanicals, however, should have no problems in outlasting the rest of the car, and the new Mini will probably be even cheaper to repair than ever, with its low-cost parts. DIY owners get plenty of help from the handbook.

DRIVE's calculations show that the Mini is still the most economical British car you can buy in terms of depreciation. A car costing £1335 new in 1975 is still worth £1055 in part-exchange today—though of course second-hand prices have been held artificially high by the fearful rate of inflation in the Britain of the nineteen-seventies.

That the Mini still compares at all with 1970s-designed cars is a

remarkable tribute to a car that brought a new word to the motoring language and new ideas to motoring 19 years ago.

And compare it still does—make no mistake. With its handling, its petrol parsimony and a £300 price advantage on rivals, the Mini is still a sales force to be reckoned with.

The saddest footnote is that Leyland has never made a concerted effort to cure the little car's Achilles' heel—rust. DRIVE suspects that, freed from this shackle, there would be a strong market even in the 1980s for the Mini, no matter how outdated its design, how cramped its space or how noisy its ride—if it can be built to bump and shout its way to 100,000 miles.

Soon, says Leyland, we may see a new, longer, roomier, quieter, smoother, comfier Mini, complete with a hatchback to take on Ford's Fiesta, VW's Polo, *et al*. And a good thing, too.

It's doubtful, though, if anyone will love it any more than the little original. That's a feeling that Leyland could capitalise on—but even lovers will forgive only so many faults...

Datsun Cherry FII



THE DANGER OF ONE BITE TOO MANY

It was a bold stroke: unlike most of its compatriots back in 1972, the original Datsun Cherry tried to meet European competition head-on as an up-to-the-minute front-wheel-drive small car with 'western' rack-and-pinion steering. And with the British car industry now having to plead with Datsun UK to stop—or at least to restrain—importing, who can say that the seedling Cherry was anything but a flowering success in this country?

But that was six years ago. Life—and cars—have moved on. Lots of furious activity in rival design departments has spawned some clever new ideas. Nissan-Datsun has rethought things, too, but the new Cherry FII runs counter to current trends, remaining basically a saloon with an estate option, all on a longer-than-small-car wheelbase. Accordingly, the Cherry is one of the biggest

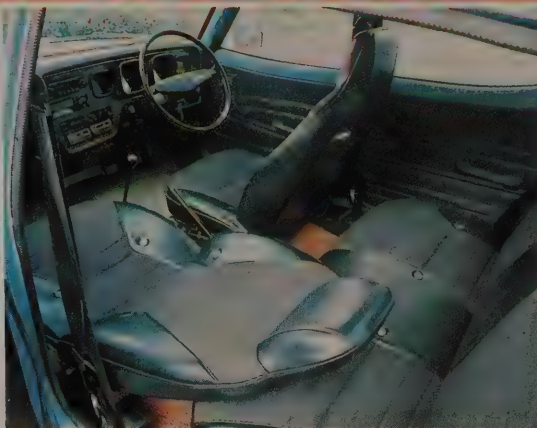
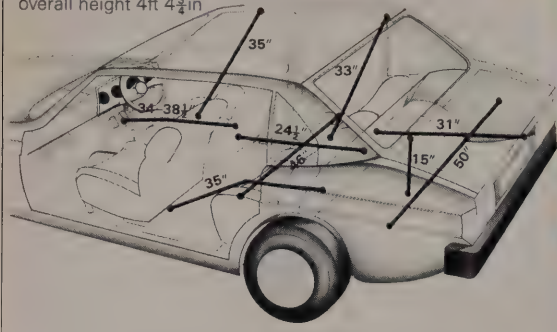
of the current batch of 11litre cars. Is it ripe... or over-ripe?

How it goes

Cherry buyers in some parts of the world can have the manual-transmission saloon in 1200cc form—an option that is open only to coupé boy-racers or automatic fans in Britain. DRIVE's testers looking at family cars in this issue had to make do with the 988cc saloon. Perhaps Datsun feels that the general adoption of the bigger engine would dent sales of its 120Y saloon and produce a less 'stepped' range? Technically, however, the new Cherry emerges with down-graded performance—and, we suspect, economy—as a result.

Carrying a bit more fat and having to cope with it on a higher-g geared engine puts a severe damper on top-gear acceleration. In this respect, the Cherry now makes a poor showing against all the other 11litre small cars: top-

kerb weight 15cwt
overall length 12ft 6½in
overall width 4ft 11in
overall height 4ft 4½in



gear acceleration from 30–50mph of 17sec can only be described as a sudden burst of apathy.

Things are brighter if free use is made of the lower gears, but the Cherry still cannot keep up with the Renault 5, and the Mini 1000 will leave it red-faced. Nevertheless, it does manage to produce almost class-average acceleration when the three-bearing engine is wound up to where the power lurks—a somewhat frenzied-sounding business.

The twin-choke carburettor is free from the bad flat spots that used to afflict Datsuns, but it does still gulp at times. The driver with a sensitive right foot will feel a distinct second pressure in the accelerator pedal as a warning that the greedy second choke is about to open, but avoiding its use is hard: the Cherry-driver needs all the poke his car can muster. Sure enough, DRIVE's test-consumption showed a 3mpg drop on previous figures, with a disappointing thirst in short-journey, stop-start work when the little engine hadn't warmed.

Unlike many, however, the Cherry is happy on 2-star petrol,

Everyman Report

On balance, the Cherry won the 11tre wooden-spoon award. Even Glenn, who finally found a car that was more of a size to suit him, failed it for being uncomfortable and underpowered, though he admitted it did have a creditable performance for its small engine.

James found the Cherry's noise well-subdued and its handling positive, although he, too, would have asked for a bigger power unit. He felt that it was a better buy than the Renault.

David, on the other hand, reckoned it second to the Renault: 'I didn't like the seats or the whine from the transmission. The boot is good, but the hole to put the luggage through is too small.'

Joan complained of bad vision, too—'I almost had to stand up to see out the back window.' But what ruled the Cherry right out for her was 'something in the front seat that poked into the small of my back. I didn't like this car.'

and a generous tank capacity promises a good range. Unfortunately, nasty filling habits, such as blowing back and refusing to accept the last 1½gal at more than a trickle, limit the distances between petrol stations.

Good, steady handling—forgiving even to the driver who overdoes things into a corner, then backs off in panic—makes the Cherry equal to most of its Occidental counterparts as an accident-avoider. Drivers weaned on the likes of the Fiat 127 or VW Polo, however, will feel a less-sharp response, a lack of sympathy from the steering and reduced handling precision. Perhaps Datsun has become complacent because of the lack of competition in suspension know-how back home.

The new car's ride is undoubtedly superior to its predecessor's—and even to the 120Y's—but it has lost ground to the latest European rivals. There is too much restless disturbance when lightly laden, yet it becomes 'soggy' with a full load. It never feels like anything other than a small car.

The gear change is good enough to take the sweat out of the constant cog-swapping that the lethargic engine demands, and, apart from the occasional jib when selecting a gear at rest, it and the clutch perform more sweetly than most transverse layouts. The result is a power unit that, despite its stodginess, is very flexible in town, with the easy and precise controls that we have come to expect from Datsun cars.

Out on the longer-distance cruise, too, the new Cherry is a convincing improvement on its honourable ancestor, with road rumble, gear whine and engine noise better suppressed—though none eradicated. There's no wind noise, and up to 65mph the car now cruises in a restrained fashion. The testcar did, however, suffer from a few body rattles.

One thing that's been borrowed from the Cherry's 120Y big brother is its larger front disc-brakes. With servo as standard, the system pleased DRIVE's testers in ordinary use, demanding intelligent pedal pressures

Price £1999
on the road £2101
Parts/repairs (inc VAT; fitting times in brackets)
clutch £40.53 (1hr 30min)
exhaust £19.69 (42min)
headlamp unit £4.11 (24min)
front bumper £29.62 (24min)
laminated windscreen £30.48 (1hr 48min)
oil filter and points £3.80 (30min)
major service—12000 miles (2hr 30min)
Loss of value £63 per year
0.53p per mile
Total depreciation £468 per year
3.90 per mile
Running costs £535 per year
4.46p per mile

and producing a respectable emergency stop. Fade, however, is their bane: long steep-hill descents could be tricky, and water affects them, too.

Over-the-shoulder vision is a continuing Datsun blind spot, although wiper arcs, and headlamps with 'Joe' Lucas-type beam patterns (not sharply defined, as the Continentals would have them), drew approval.

Inside story

It is taking Datsun some time to notice that its European customers come in different sizes to its home-market clients. This plumper Cherry still skimps on driver legroom, and the cloth-covered seats lack spinal support. Even smaller drivers, although happy, felt less cosy than in the roomier Renault 5.

Instrumentation, on the other hand, is showing a Western influence: it's not *too* jazzy. There are fewer blanks than on previous, cheaper Cherries, but you still don't get an accurate mileage recorder (Japanese miles seem to be 6⅓% shorter), neither are there warning telltales for choke and low fuel level.

Twin stalks for indicators and lights can be confusing—both being on the same side of the steering column—and the dip-switch action is in direct conflict with every other maker's idea on which way a dipswitch should normally work!

Despite its generous wheelbase—more Austin Allegro/VW Golf-sized than super-mini—internal space seems to have been frittered away. The car has only a small advantage over its cramped

predecessor, and the Ford Fiesta, for example, is a much cleverer package. Even the dimensionally similar Renault 5's rear seat gives more comfort.

One compensating advantage is the availability of a four-door version; but even here the Cherry spoils it with seatbelts that get in the way of the rear doors.

The front passenger door doesn't possess a courtesy-light switch—a mean omission—but the locking arrangements are sensible: interior latches make you 'see red' if left unlocked. Heating and ventilation perform admirably in extreme weather conditions, providing lots of winter warmth, or a well-diffused blast of fresh air to the face on hot summer days. Both temperatures can be fan-boosted, too.

Where the system is not so clever is when you want a subtle blend of both: the heater slide is unprogressive, and you can end up with hotter air to the face than to the feet. Feet suffer, too, from occasional unwelcome draughts, and the central facia vents—however generous—cannot, of course, demist door windows.

Datsun safety thinking is somewhat schizophrenic: high-backed front seats are provided (like the seatbelts, they're nice for those in front, and those in the back have to make the best of it) but roof padding is unconvincing, especially behind the sunvisors. Fuel tank protection and side indicators are good safety points; but there's no load-sensitive rear valve for the brakes.

Living together

In common with other Japanese makes, Datsuns have earned an enviable reputation for reliability. Despite the greater complexities of front-wheel-drive, the Cherry shares this attribute, and under the bonnet it's an object lesson in how to win friends and influence people. The accessibility, beautiful finish and oiltight attention to detail will certainly win sales.

But a mechanically reliable car isn't automatically a rust-resistant car. Look past the good quality control and sound basic materials—one has only to inspect, and stroke, Datsun paintwork to be impressed by its quality—and you will find underbody protection that stops short of current Vauxhall or Fiat ideas: mudtraps and vulnerable body seams are on view; chrome plating, too, is much in evidence.

There are no tools nowadays with the Cherry, and the jack is still of the sort that will have you grovelling like a geisha girl. Servicing accessibility, however, has been improved, and DIY-owners will be pleased to find that there are still grease-points for attention at extended intervals.

Strangely, the handbook isn't very informative on a model that

constitutes a good home-service proposition, but spares continue to be more reasonably priced than many European imports. Certain major repair operations, however, are more time-consuming than they are on the Datsun Sunny and other cars with 'conventional' works.

The interior is nicely trimmed, with a well-fitted carpet and wipeable plastic covering the sills. Outside, the front grille seems unnecessarily difficult to clean, and the wheels, with their

unpleasant plastic embellishers, don't make washday a joy.

Competitively priced and reasonably equipped, the Cherry FII remains good value, with the estate car costing no more than hatchback rivals and the saloon undercutting its opposition. Even the 'hidden extras' are cheaper than most—the worthwhile radio comes fitted for £40, and inertia-reel seatbelts are standard.

This keen pricing cannot totally account for the model's good

depreciation record: current owners of the old Cherry are faring better than just about everyone else, and it's not only the 320 Datsun dealers who are prepared to pay good part-exchange prices. About the only thing that costs a Datsun-Cherry owner more is insurance—one group higher than rivals.

The original Cherry founded Datsun's increasingly illustrious reputation. Will the latest version help or hinder?

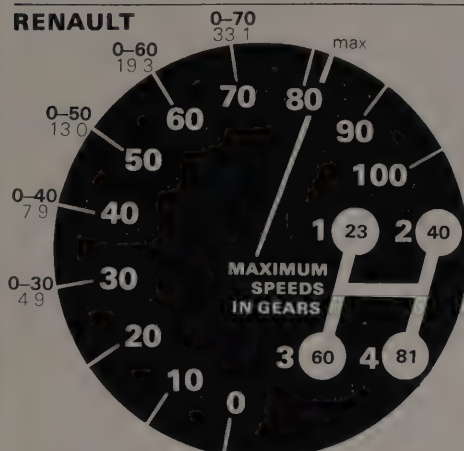
In reliability, it almost certainly

will help; in rust resistance, it is less convincing. But it is in the way that it goes that the Cherry is most disappointing.

The plumper Cherry has outgrown its class, yet fails to produce the juicy goods inside. The 1litre engine, especially, feels the strain. More refined but less lively or frugal, it cries out for a 1200cc transplant—which would then confirm that the new car isn't a mini at all... until the happy day that you come to trade it in, that is, and find it's in maxi demand.

RENAULT

ACCELERATION THROUGH GEARS (secs)

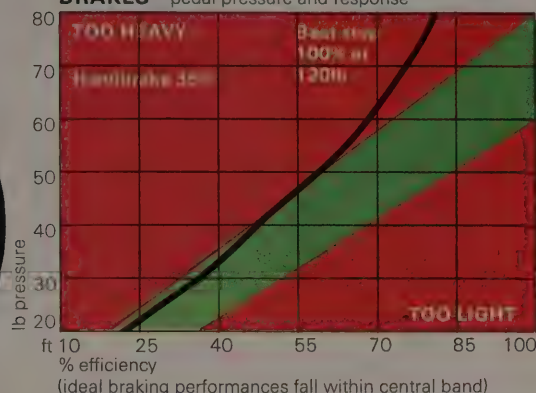


maximum revs 6000, standing $\frac{1}{4}$ mile 21.3sec

top-gear acceleration (sec)

20-40 12.2, 30-50 13.6, 40-60 17.3, 50-70 24.0

BRAKES—pedal pressure and response



FADE TEST pedal pressure needed for 40ft/75% stop (ideal car would show no variation)

82lb at start; 75lb in constant use; 140lb in severe use

WATERSPLASH 3 stops to recover

FUEL 4-star/96 octane

overall consumption 39 $\frac{1}{2}$ mpg;

effective tank range 275 miles

Normal range of consumptions

motorway—69mph cruising	32mpg
hard driving, heavy traffic	33 $\frac{1}{2}$ mpg
short-journey suburban	33 $\frac{1}{2}$ mpg
mixed roads—brisk—50mph cruising	40mpg
quiet rural—40mph cruising	46 $\frac{1}{2}$ mpg

HILL TESTS maximum gradients for:

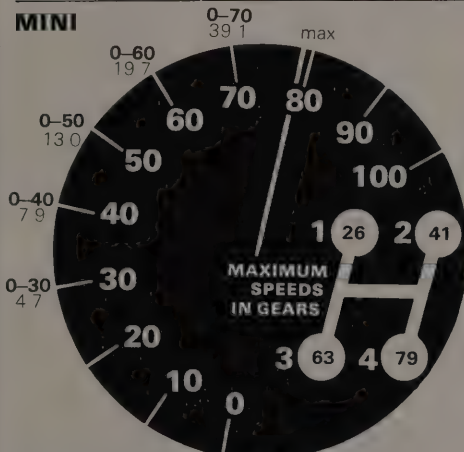
handbrake	1 in 3
hill start	1 in 3
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	● interior—well padded
front seats—head restraints	● windscreen—laminated
front seats—secure mounts	● door latches—crashproof
front belts—effective	● door latches—childproof
front belts—convenient	● tank and filler—spillproof
rear belts—fitted	● brakes—fail safe
hazard warning—fitted	● brakes—load sensitive
● standard feature	○ factory-fitted extra

MINI

ACCELERATION THROUGH GEARS (secs)

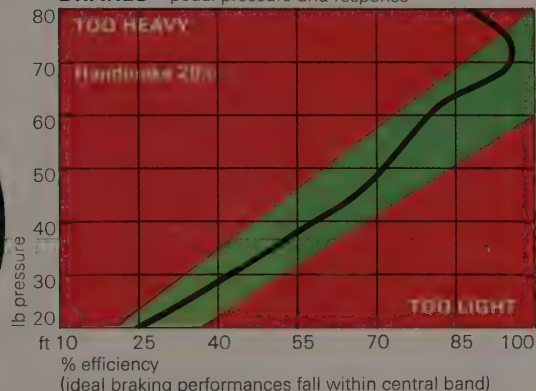


maximum revs 5750, standing $\frac{1}{4}$ mile 22.0sec

top-gear acceleration (sec)

20-40 11.4, 30-50 12.6, 40-60 15.2, 50-70 21.3

BRAKES—pedal pressure and response



FADE TEST pedal pressure needed for 40ft/75% stop (ideal car would show no variation)

53lb at start; 48lb in constant use; 68lb in severe use

WATERSPLASH immediate recovery

FUEL 2-star/90 octane

overall consumption 42 $\frac{1}{2}$ mpg;

effective tank range 200 miles

Normal range of consumptions

motorway—67mph cruising	34 $\frac{1}{2}$ mpg
hard driving, heavy traffic	34 $\frac{1}{2}$ mpg
short-journey suburban	35 $\frac{1}{2}$ mpg
mixed roads—brisk—50mph cruising	44 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	51 $\frac{1}{2}$ mpg

HILL TESTS maximum gradients for:

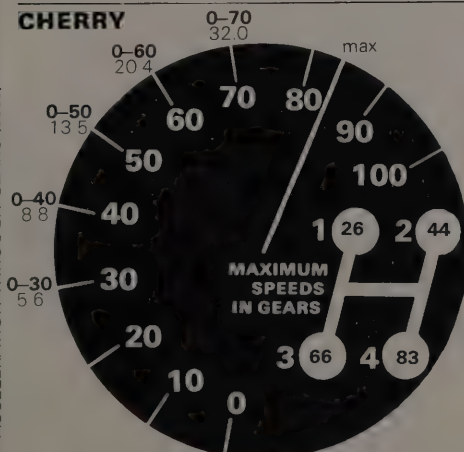
handbrake	1 in 3
hill start	1 in 3
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	● interior—well padded
front seats—head restraints	● windscreen—laminated
front seats—secure mounts	● door latches—crashproof
front belts—effective	● door latches—childproof
front belts—convenient	● tank and filler—spillproof
rear belts—fitted	● brakes—fail safe
hazard warning—fitted	● brakes—load sensitive
● standard feature	○ factory-fitted extra

CHERRY

ACCELERATION THROUGH GEARS (secs)

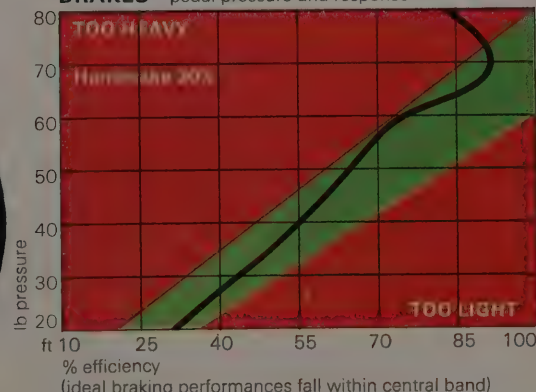


maximum revs 6200, standing $\frac{1}{4}$ mile 22.3sec

top-gear acceleration (sec)

20-40 16.1, 30-50 17.0, 40-60 19.1, 50-70 23.7

BRAKES—pedal pressure and response



FADE TEST pedal pressure needed for 40ft/75% stop (ideal car would show no variation)

60lb at start; 60lb in constant use; 95lb in severe use

WATERSPLASH 6 stops to recover

FUEL 2-star/90octane

overall consumption 38 $\frac{1}{2}$ mpg;

effective tank range 270 miles

Normal range of consumptions


short-journey suburban	32mpg
hard driving, heavy traffic	33mpg
motorway—70mph cruising	33mpg
mixed roads—brisk—50mph cruising	39 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	46mpg

HILL TESTS maximum gradients for:

handbrake	1 in 4
hill start	1 in 4
engine idling	1 in 3

SAFETY CHECKS—the more blobs the better

steering—energy absorbing	● interior—well padded
front seats—head restraints	● windscreen—laminated
front seats—secure mounts	● door latches—crashproof
front belts—effective	● door latches—childproof
front belts—convenient	● tank and filler—spillproof
rear belts—fitted	● brakes—fail safe
hazard warning—fitted	● brakes—load sensitive
● standard feature	○ factory-fitted extra



BACK IN OCTOBER 1967, when the breath-test was just about to be born, DRIVE revealed all about drink-drivers in a typical English town.

These were the volunteers in The Northampton Experiment—a month-long analysis of the drinking and driving habits of 20 random motorists. It included three surprise DRIVE-administered breath-tests for each volunteer, to encourage *some* sobriety.

But Barbara Castle's official breath-tests were less successful in the longer term. In Northampton, as elsewhere, the initial improvement in the accident rate was short-lived, and between 1972 and 1975 convictions for drink-driving offences rose by 76%; nationally, the total doubled in the seven years between 1969 and 1975.

So, 10 years after that first experiment, DRIVE met nine of the original 'guinea-pigs' and 10 younger motorists who have lived with the breath

test all their drinking lives. The veterans were asked to keep a week's log of their drinking outings, while the new recruits tried the 1967 experiment.

The results were sobering. For, while time and the menace of the b-test have mellowed the nine's drinking habits, the green crystals are, it seems, no restraint on younger motorists.

Money seems to be no problem to DRIVE's 10 young Northampton drink-drivers, who spend between £5 and £17 a week each at the trendy teenage pubs that flourish in the town. Aged between 18 and 28, all are reasonably aware and several are in responsible jobs. Their drinking habits are typical of the trend revealed by a report earlier this year: of a 7300 sample of young people, most had generous incomes, and most did their drinking away from home.

One summer evening last year, eight of the 10 knowingly cocked a snook at the breath-test law. They chose to drink and to run the risk of being caught—a surprising

gamble when all but one had been stopped by the police at least once since they started driving. Several had also been tested, but none had been booked.

When DRIVE sprung a breath-test on each of the youngsters, three were well over the limit, and two others turned the crystals the forbidden green but were borderline cases who might have been booked—a reflection of the most worrying statistic of all: *in 1974 and 1975, specially analysed coroners' returns showed that two in every five drivers aged between 16 and 24 who died in traffic accidents were above the legal blood-alcohol limit.*

Yet not one of DRIVE's 10 young 'guinea-pigs' regarded themselves as a danger...

The Bricklayer, 21, 11st 9lb

A drinker since he was 15, the brickie confessed that he had never considered limiting his consumption—perhaps because he had never been stopped by the police. DRIVE's breath-test made him a borderline case on four pints. 'Frankly, it takes about 10 pints, and shorts on top, to make me really drunk,' he claimed. 'Two would be my safe limit, but I drink that little very rarely.'

His log, however, claimed that a typical



'I'm twice as good when I've had a few...'

Researched by ROLAND WEISZ

evening out consisted of 12 pints of beer followed by a hurried meal, then a three-mile drive back home.

The Office Worker, 21, 10st

On the day DRIVE asked her to blow into the bag, six glasses of white wine at lunchtime, a full-scale meal and nine whiskies at night had made the office worker—amazingly—only a borderline case; but afterwards she still drove home. She said her 'safe limit' was four scotches or six glasses of wine.

'I only limit my drinking when I've got a long journey ahead,' she said. 'Generally, I only have a short distance to drive home, so I drink until closing-time. When I realise I've had too much, I sometimes stay the night with friends.'

The Photographer, 20, 9st 8lb

On average, this girl drinks on four or five days a week, and gets 'quite smashed' at weekends: 'My trouble is that I mix my drinks. It's silly really, but it seems acceptable at the time.' Her 'safe limit,' she said, was three vodkas. Surprisingly, she managed to pass DRIVE's breath-test after two bacardis-and-coke and four vodkas.

On holiday during DRIVE's survey, she



admitted to driving four miles one night after drinking 10 'various shorts' and eating a large meal.

A few months before she had written-off her sports car, but had escaped from the wreck with only minor injuries. 'My accident had nothing to do with being drunk,' she said. 'If it had, I'd stick to soft-drinks.'

The Clerk, 26, 11st 7lb

'I drink until I have had enough, and that isn't usually until closing-time. After an evening meal, I'd consider myself safe to drive on two pints and five scotches.'

The clerk coloured DRIVE's crystals only slightly, although he had just had eight whiskies, half a pint of bitter and half a pint of draught lager. But he had eaten a cooked meal earlier that evening.

During the survey period, he went to a party where he drank a minimum of a dozen glasses of whisky, six glasses of rum and six pints of cider. 'It was the only time I've ever stayed the night,' he said. 'But once or twice before, when I've had too much, I've let someone else drive.'

The Civil Servant, 20, 10st 10lb

He once survived blowing into a police breathalyser even after he had trapped a man's leg between his car and another. Having had at least seven pints and several gins, he knew he was over the legal limit.

'Fortunately, by the time the police arrived, only minutes later, I had sobered up and passed the test,' he said. When he blew into DRIVE's bag after three pints of bitter, the test was negative—sadly reinforcing his belief that he was 'safe'.

The Student, 21, 8st

This girl failed her DRIVE test on five glasses of wine taken after a normal meal. But, weighing so little, she didn't think she was safe to drive after just four.

'I usually drink until closing-time and then drive home,' she said. 'When I've had too much to drink, I take a taxi, or, at parties, stay the night.'

The Journalist, 25, 12st 7lb

'At a party, I drink more than if I'm having

a quiet drink in a pub,' he said. What was 'a quiet drink', in his terms? His DRIVE log showed that one evening he had driven 20 miles on six pints of beer, after a meal.

He failed DRIVE's breath-test after drinking five pints of beer and a whisky, yet he thought he was safe on four or five pints, or five whiskies. The police had stopped him on several occasions, but he had never been prosecuted.

The Composer, 23, 12st 7lb

One day, during the DRIVE survey, the composer drank two pints at lunchtime and a further six pints and three scotches in the evening . . . before setting off on a 25-mile drive. He admitted he so much enjoyed drinking that he would *never* set himself a limit.

'After two or three pints it really doesn't occur to me to stop,' he said. Though he passed DRIVE's breath-test, he coloured

NOT ALWAYS IN THE BAG

The youthful drink-drivers' confidence in evading a breath-test prosecution is reflected in the Northampton police force's figures. In the first nine years of the breath-test, the county police gave motorists 6800 breath-tests, and convicted 2676 of them—a 39% success rate.

In the first three months of the breath-test era, more than half of the total Northampton motorists tested were over the limit, resulting in 21 convictions.

Each year, the number of tests has been rising—from 363 in 1968 to 1430 in 1976. Until 1975, convictions had been going up, too—from 151 to 501, the figures swelled by younger motorists—but in 1976 the total fell to 413—a 28% success rate.

A similar pattern emerges from the national figures. In England and Wales the number of breath-tests administered has been rising steadily since 1971 and, until 1975, so had the number of positive readings from them.

In 1971, 96,000 tests were given, 56,000 (58%) proving positive. In 1975, tests rose to 133,700, producing 70,300 positive readings, a 52% success rate.

But, in 1976, although tests went up to 134,000, positive results dipped 10% to 57,100. Convictions, too, having gone up from 40,000 in 1971 to 62,400 in 1975, dropped to just over 55,000 in 1976.

the crystals slightly after only three pints of beer. 'Actually, I was once stopped by the police when I was well over the limit,' he admitted, 'but they didn't test me.'

The Manager, 27, 10st 7lb

Every Saturday during DRIVE's survey, this man drank three pints at lunchtime, another two pints in the evening and drove 10 miles after each session. He managed to pass the DRIVE breath-test on two-and-a-half pints of draught lager.

He regarded two or three pints as his maximum 'safe' amount, and said that he didn't drink shorts if he knew he had to drive. He approved of the breath-test 'because at least it keeps most of the people off the roads who drink until they are completely drunk'.

The Signwriter, 28, 10st 10lb

'My safe limit is about four pints,' he said confidently. Yet one night during the survey, he drank 12½ pints and drove nearly four miles home. His DRIVE breath-test proved positive after four pints of lager.

Though he had had two endorsements, and been fined £50 for motoring offences, he had never been booked on a drink-drive charge: 'If stronger laws were introduced, perhaps I would stop drinking and driving altogether.'

Sometimes his wife insisted on taking the wheel because she considered him incapable. 'I dread to think what would happen if I wasn't there,' she said. 'I'm sure he would convince himself he was safe. It's so stupid. He's got his own business, and we stand to lose so much . . .'

In praise of older drivers

Only one of DRIVE's nine 'veteran' drink-drivers who were traced in Northampton 10 years after they took part in the magazine's original study had fallen foul of the breath-test law since 1967. He was convicted and banned for a year in 1975 after clipping the rear of a parked car. He had been drinking wine all evening and had known he was well over the legal limit.

Another admitted to '10 years of undis-

TRAVELLING HOPEFULLY Northern likes

by KEITH WATERHOUSE

WHEN I WAS renewing my passport a few months ago, an unkind friend suggested that I should state my profession as Northerner.

It is a reputation that has dogged me. Just because I have mildly suggested, from time to time, that the pie-shops of Wigan make Harrods' food hall look like a British Rail buffet, or that the arcades of Leeds compare favourably with Milan's *Galleria Vittorio Emanuele*, or that Rochdale town hall is superior in its flamboyance to the Brighton Pavilion,

word has got about that I am biased in favour of the North.

Not so. I am biased in favour of towns and cities that function as towns and cities should. By which I mean that they should have a beginning, a middle and an end, like a well-told story. Thus I reject Birmingham, which resembles a giant bathplug, but embrace Bradford. I reject those sprawling country towns—all antique shops and Anne's Pantry—that taper out on the fringes of the New Forest. Give me a compact milltown with a few tall chimneys . . .

It happens, by geographical chance, that most of the places that fit my definition are in that region twixt Trent and Tweed that is technically known as Oop North. Most, but not all. Bristol, for example, is quite obviously a

Northern city masquerading as a West Country one. But post-bulldozer Manchester (which reminds me of Gertrude Stein's remark about Oakland, California: 'When you get there, there's no there there') should be put on a lorry and dumped in the Essex marshes.

The first thing I want of a town is that my heart should quicken with anticipation as I reach its outskirts. The road leading into it must beckon me. Like the wrapping on a Christmas parcel, that final stretch of tarmac must tingle with promise. (That, I'm sorry to say, rather rules out Windsor, whose seedy B-roads seem to suggest that I would be happier going on to Maidenhead. But it fails to rule out a score of other Home Counties towns whose

sleek approaches promise more than they can possibly fulfil.)

I remember very well my introduction to this now-familiar anticipatory heart-lurch. I was about 10 at the time, and bouncing by charabanc along the road between Preston and Blackpool. I had never been to Blackpool. I knew no more about the place than could be written on the back of a Donald McGill postcard. But Blackpool, I knew, would not disappoint me—the road told me.

My memory of that adventure is exactly as J B Priestley described it in his *English Journey* of 40-odd years ago: *Beyond Preston, in a flat and characterless countryside, all the roads suddenly become very straight and wide and display large, cheerfully vulgar advertisements. That is because they, like you, are*

covered crime', because he had not altered his risky drinking habits since 1967.

The nine—who again logged their drink-drive habits for DRIVE in 1977—were not all unrepentant sinners. Though five drank over the limit at least once during the test week, all but two had cut down on their consumption during the past 10 years.

Their new logs reflected a greater sense of responsibility than they had shown in 1967, and contrasted sharply with the attitudes of the younger motorists...

The Technical Representative, 57, 19st

The rep had got a positive reading in 1967 after drinking five small bottles of lager. 'That really shook me. But the breath-test law didn't make me change my drinking habits. I still go to my club every night, and I usually drink three double whiskies and four half-pints of light ale.

'I always drive home by the same route, never deviating. If I were asked to take a driving test after drinking, I'm sure I would pass it, because I think I'm a more careful driver when I've had a few...'

He maintained that he could now drink a full bottle of whisky in an evening and show no sign of intoxication; but he did occasionally resort to a taxi after an especially liquid celebration! The 1977 log, however, showed that his riskiest evening-out comprised four pints of beer before driving home.

The Funeral Director, 58, 15st

'I don't approve of the breath-test law. It simply doesn't deter drink-drivers.' The funeral director preferred to police his drinking himself. 'When I took the DRIVE breath-test, 10 years ago, I was clear in all three checks. I managed that and 42 years of accident-free motoring because I know exactly whether I'm fit to drive or not.'

Whenever possible, if he plans to drink heavily, he arranges to be picked up by one of his firm's cars. 'On the odd occasions that I've drunk more than I intended, I've left the car and phoned for someone to take me home. Sometimes, too, my wife drives if I think I shouldn't be at the wheel.' His most imprudent

CRYSTAL CLEAR?

'There has to be a guaranteed, foolproof way of finding out when a motorist isn't in a fit state to drive,' said one of DRIVE's young Northampton drink-drivers. Certainly, the Alcotest that is supplied to the police, and which DRIVE used in its latest survey, represents no more than a rough guide.

Apart from the alcohol content of the blood, body weight and food intake also affect the degree to which the yellow crystals turn telltale green. So, while more than 130,000 police breath-tests are given every year, far fewer result in a prosecution.

Every suspected drink-driver is given a second Alcotest and, if that proves positive, a blood or a urine test—the only sure way to measure the alcohol content of the blood.

The legal limit of 80 milligrams per 100 millilitres of blood is usually reached by an

outing in the latest study consisted of eight whiskies and four pints of beer before driving two miles...

The Journalist, 51, 13st

After colouring DRIVE's crystals over the limit on three pints in the 1967 tests, he cut down his drinking for a couple of months, but gradually slipped back to his usual nightly seven pints of bitter. 'Yes, I took risks,' he said. 'And I was "done" after a wine-up in London, when I was living in Surrey. I hit a car on a bumpy private road within yards of my home.'

'It was a nuisance having to wait at bus-stops, walk and cycle with shopping for a year, but it didn't interfere with my job.'

While believing that the breathalyser law is sensible, he still takes risks: 'Sometimes I drive home on three pints, put the car away, then rush to the local on foot. Usually, though, I keep drinking happily—and worry like hell in the car all the way home.' His most worrying drive during the 1977 survey period was over eight miles on seven pints of bitter.

The Managing Director, 57, 14st

He failed the DRIVE breath-test 10 years ago after three pints and two whiskies. When the new law was enforced he also cut down his drinking and driving for a while, but soon started taking

11st man one hour after drinking two-and-a-half pints of beer or five whiskies. A heavier person might be able to drink marginally more on a full stomach, but the risk of an accident increases for the average-weight motorist as soon as one pint of beer (30mg of alcohol) is exceeded. At 80mg, the risk is four times greater, increasing to 25 times greater at 150mg (five pints)—so there's really no such thing as the 'safe limit' to which DRIVE's sample of motorists refer.

Even on the 'morning after', the drink-driver is at risk. The body can only eliminate blood-alcohol at about 10-15mg an hour, so the heavily hung-over driver can still be well over the top from the previous evening.

The younger interviewees, it seems, have given a new twist to the phrase 'one over the eight'. They don't seem to give a second thought to having quite a few over the 80.

chances again. 'Some nights I stick to my "safe" limit of three pints of draught beer, but occasionally I drive home after seven pints—a figure confirmed by his log.

'I try to avoid having more than three pints, but last night I went to a club "do", and they lined up seven for me. I knew I was taking a big risk.

'I think the breath-test law is a good deterrent to drink-drivers, but I rarely ask my wife to drive, and I'd certainly never take a taxi home after a good drink. Fortunately, I've never yet been stopped by the police for a test.'

The General Manager, 64, 13st 12lb

Before the breath-test, he often drank seven half-pints of draught beer, plus four or five whiskies. But in the 1967 DRIVE tests he never once registered a positive reading—even after drinking six whiskies and seven beers.

'I've been driving for 46 years without an accident or a conviction for any motoring offence, and I want to keep my slate clean. So, since 1967, I've cut out beer and eased-off on my whisky consumption.' His biggest risk was driving one-and-a-half miles after four whiskies.

'The trouble with the breath-test law is that it punishes those who depend on driving for their work. But clearly it doesn't deter young people from mixing



going to Blackpool. Even if you did not intend to go to Blackpool, once you had got beyond Preston you would have to go there. These roads would suck you into Blackpool. That is what they are there for.

Blackpool, many people complain, is 'too commercial'. Which is exactly like complaining that Mount Everest is too high.

Blackpool is supposed to be commercial. It set out with that very intention. It did not, like Bournemouth or Eastbourne, dip a toe in the entrepreneurial briny and then scamper off. It dived in with both feet.

And that brings me to the second thing I want of a town: it should be what it is. Thus York, a manufacturing town trying to

pass itself off as an ancient walled city, fails my test; but Swindon—which to the best of my knowledge has never pretended to be anything other than Swindon—succeeds.

Bath fails: it is embarrassed by its Beau Nash pedigree and would secretly like to change its name by deed poll. Slough succeeds: it was determined to be the ugliest town in the kingdom—and it won.

I do not care whether I am in the North, the West or the South of England—always provided that the South or West could be mistaken, under the conditions I have laid down, for the North. As to that old adage about it being better to travel hopefully than to arrive, I would change it round a bit. Hopefully, it is better to arrive than to travel.



MOTURING LAW

Trouble chance in the 'pools'

STEPHEN HOWE was already late for a business meeting when he collected a 'pool' car from his firm's garage, so he simply hopped in and drove off. After all, the company did have a mechanic to do all the routine checks, such as oil levels and tyre pressures.

What he didn't realise was that the one harassed garage-hand just couldn't keep pace with all the chores on the hard-used fleet of Ford Escorts. In fact, Howe was driving with two tyres scrubbed almost clean of their tread. And probably he would have remained blissfully ignorant of the fact if he hadn't been speeding.

Howe instinctively slowed when he saw the flashing blue beacon in his mirror—but too late to prevent being 'clocked' at 45mph. Fair enough, he sighed. But, when the

policeman inspected the car and discovered two rear tyres with an illegal amount of tread, Howe reckoned he had the perfect excuse. After all, how could he be expected to check everything on every car he took out?

Even if the magistrates did hit him hard for speeding, Stephen Howe felt certain that they would let him off the tyre offences, so he saw no point in adding a solicitor to his costs. But, in the event, those tyres cost him a £30 fine and two endorsements on his licence—on top of a £25 fine and a third endorsement for speeding.

His firm pleaded guilty by letter, and escaped with just a £30 fine for the faulty tyres—limited companies haven't got a driving licence that can be endorsed. (It's worth noting, however, that business partnerships and some other kinds of companies might not be in the same position.)

To rub salt in Howe's wounds, the insurance premium on his own car was later increased because of his court conviction. It was an expensive way to learn that responsibility belongs not only to a car's owner. *Whoever is in charge of it is answerable for its condition as it is driven.*

The Highway Code spells this out in the section on what motorists should do before any drive, including a check that 'tyres are suitable for the vehicle, are pro-



'The usual, I suppose—he could swear he was only doing 30, his tax is lost at the DVLC and his insurance is in the post

perly inflated, have a tread depth of at least 1mm and are free from cuts and other defects'.

Any vehicle on the road has to conform to all the Construction and Use regulations, so it is no excuse to say that you were only borrowing it. It's the driver's licence that gets endorsed, and the driver's money that pays the fine—although, depending on the particular circumstances, others can be fined, too.

But Howe's defence of himself in court was perhaps lacking: a solicitor *might* have been able to convince the magistrates that Howe didn't know and had no reason to suspect that an offence would be committed by driving the car. He wouldn't have avoided the conviction, but he

might have avoided the endorsement of his licence.

Certainly, driving any car that's not your own can involve many hidden snags. Bob Hardy, the AA's road safety officer, says: 'Anyone taking out a "pool" car, renting from a hire-car company or driving any car that isn't his own would be well-advised to find out how the doors lock and how the seatbelts operate before setting off.'

The biggest snag can be insurance. Most drivers using someone else's private car will have only third-party cover—and basic terms of hire-car insurances usually aim to protect the car's owners rather than its driver, although fuller cover is normally available as an optional extra. ●

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YOUNG DRINK-DRIVERS
continued from page 27
their drinking and driving for pleasure.'

The Composer, 42, 11st 7lb

Like his younger counterpart, the older composer paid little heed to the quantity of his alcohol. 'If you know you're over the limit on three pints, you might as well drink five or six,' he said.

'Four years ago, I found out I was diabetic and stopped drinking for two months. But then I persuaded my club to stock a special lager for diabetics; now I can drink six and drive, though I'd probably colour the crystals after one.'

During DRIVE's 1977 study, his worst record was a 16-mile drive after three whiskies. 'Soon I'll be travelling 30 miles daily, to and from work, so I suppose I'll have to take it easy on the drink.'

The Driving Instructor, 58, 11st 2lb

Of all the 'veterans', a drink-driving conviction would hit this man the hardest: 'I'd stand to lose my instructor's licence as well as my driving licence.'

In the 1967 DRIVE tests he didn't colour the crystals once, even though he often drank four or five pints of beer and up to five whiskies before driving home. 'Now, if I drink more than two pints and three whiskies, my wife takes over at the wheel. I've also left my car parked overnight and begged a lift home.'

His biggest risk in the 1977 study was two beers and three whiskies before a four-

mile drive. 'Because I like to drive to the pub, I don't take many risks these days.'

The Sales Director, 32, 15st

He was a beer-loving rugby footballer 10 years ago who joined in the after-match drinking and happily drove home later. So it shook him when DRIVE's 1967 breath-tests came up positive—he vowed never to drink and drive again.

'With my job depending on being able to drive, I just couldn't afford to lose my licence. So I'm lucky to have a wife who drives but doesn't drink, and to have an expense account that allows me to take a taxi when I know a business lunch involves a lot of social drinking.'

That explained the virtuous '10 whiskies—no driving' entry in his log during the latest DRIVE survey.

The Organ Builder (retired), 65, 12st

Of all DRIVE's 1967 interviewees, the pensioner was the only one to have sold his car, so his views on drink-drivers were forthright. 'People who drive under the influence are a menace, and they should be banned from the road,' he said. 'True enough, before the breath-test I used to knock back six pints of beer every night. But I always realised the danger, and did my drinking after putting the car away, so my tests, 10 years ago, were all OK.'

'I don't really miss the car. Whenever I go to a function, I order a taxi or cadge a lift. I walk to my club, and never drink more than three or four bottles of beer.' ●

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WHAT'S NEW Screen starred?

WHEN A British motorist's laminated windscreen is cracked he now has a simple choice: pay up for a replacement or play peek-a-boo from behind the scar. This potentially hazardous game could be eliminated cheaply if Britain approves an American repair system for laminated screens.

The Novus repair takes about 20min and costs about £5. The method's simple: a special tripod with large suction cups for feet is stuck over the damaged area of the screen; liquid resin and a setting agent is then loaded into a tube on the tripod and injected under pressure into the hole and cracks. Novus claims that the finished repair is weatherproof, almost impossible to detect and as resistant to impact damage as the original laminated screen.

The claims seem bold, but they comply with regulations laid down by several important US bodies, including the Department of Transportation. Novus has been marketing its windscreen kit in the States for three years.

GROOVY

The standard tyre tread pattern, with its familiar ribs and grooves, may become a thing of the past—killed off by 'California wander'.

It's a curious phenomenon produced by Californian highways that are grooved across their width to improve water drainage and so increase tyre grip.

They've helped greatly to reduce the accident rate on wet roads, but the snag comes when the space between the road's grooves exactly matches the grooves in a standard rib tyre. Then, regardless of the tyre's brand, the 'cogwheel' effect can set up a disconcerting swaying motion.

Strangely, steering and manoeuvrability are not affected—it's more a 'seat of the pants' sensation that's harmless but bad enough to force tyre manufacturers to alter some tyre-tread designs. Goodyear, for example, has dropped the ribbed design on its Tiempo radial in favour of a dog-biscuit-shaped pattern, while its new elliptic tyre (DRIVE, November–December) has a chunky tread design similar to that on a winter tyre.

We can expect to see such changes in European tyres within the next few years. ●

It had to happen some time. And it's going to happen soon!

TRAIL AA



In fact, it's going to happen next month. That's when our all-new, big-size camping, caravanning, outdoor-life magazine TRAIL appears. And we want YOU to get to know and to value it.

TRAIL will publish every other month, starting with the April–May issue, on the bookstalls 30 March, price 40p. And every issue will be crammed full with advice and information, facts and figures, ideas and Special Offers that will give you more enjoyment of holidays and time off in the great outdoors.

Tough-talking AA consumer tests of equipment and accessories—yes. Detailed, reliable reports on campsites at home and abroad—of course. But an exhilarating breath of 'fresh air', too, that will never allow the cobwebs to form on our view of the camper's and caravanner's wonderful world of leisure.

Issue No 1 tests CI's Fairholme Merlin and ABI's Monza 1200CT caravans, Devon Moonraker and Fiat Amigo

motor-vans, and three super tents, including Vickers' Four-Plus trailer-tent.

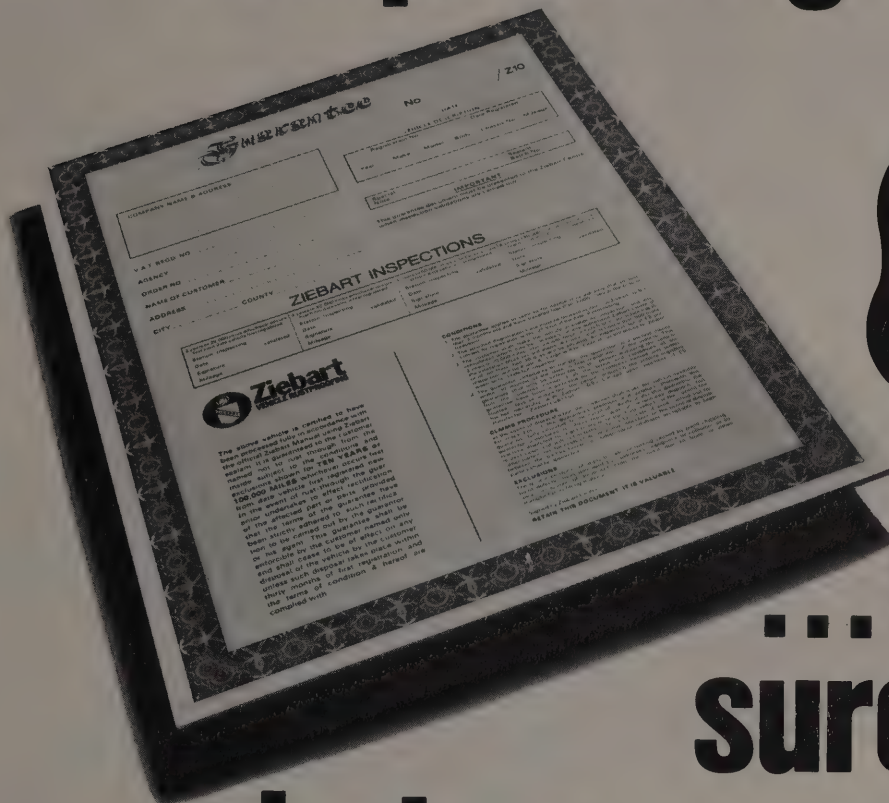
Issue No 1 gives all the good news, bad news on campsites in the New Forest, Gwynedd, Cornwall, Devon, Tuscany and the Rhineland.

Issue No 1 reports on the fire-risk in caravans . . . tells how to enjoy the countryside and protect it from thieves and vandals . . . prizes rural secrets from countryside writer and broadcaster Richard Mabey . . . excites 'overlanding' thoughts with round-the-world motor-caravanner Jonathan Hewat.

Issue No 1 invites and answers campers' and caravanners' questions on all legal, insurance, holiday, technical matters . . . offers special-price Polywarm sleeping-bags . . . AND, in a six-page Extra, gives the low-down on Camping Without Tears.

So get on to big new TRAIL. Watch for it on the bookstalls. Or, better still, turn to pages 36–37 and sign up for TRAIL and DRIVE's super-watch Special Offer.

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COMPANY CARS Britain off the rails

by ROY JOHNSTONE

LESS THAN A YEAR ago, 33-year-old area sales manager Meynall Atkinson was driving a firm's Vauxhall Viva and Ford Cortina. Today, he still makes his Yorkshire rounds in a company car . . . a Japanese-made Mazda 929 estate.

His firm—Lubrication Engineers (UK) Ltd—has already replaced half its fleet with 35 leased Mazda 616 saloons, 929 estates and 818 hatchbacks, and it could go almost completely over to Mazda in the not-too-distant future.

Much has been written and said about foreign penetration in the *private* sector of domestic car sales. But, much of a setback as this has been for the home manufacturers and for the nation's economy, it has always seemed certain that fleet buyers—buyers of company cars, hire cars, and so on—would remain faithful to the flag. These always had been—and

hopefully always would be—the main support of the British car makers.

In fact, European and Japanese competition is moving in on this sector of the market in a big way. And so successfully that it represents the biggest threat yet to Britain's Big Four car producers.

Just how dependent the home producers are on the fleet market can be gauged from the fact that it swallows between 60% and 70% of all the cars that Ford, Leyland and Vauxhall produce for the home markets.

The full significance of the gains made by foreign manufacturers in this vital sales sector is revealed in a Vauxhall report submitted to the Society of Motor Manufacturers and Traders.

Referring to British-company big fleets—ie companies running 25 or more cars—it discloses that, up to July 1976, overseas manufacturers had captured 14%

of all sales in this market—more than 50,000 cars a year.

And that, remember, was 20 months ago, before some of the big foreign names on today's fleet scene had arrived.

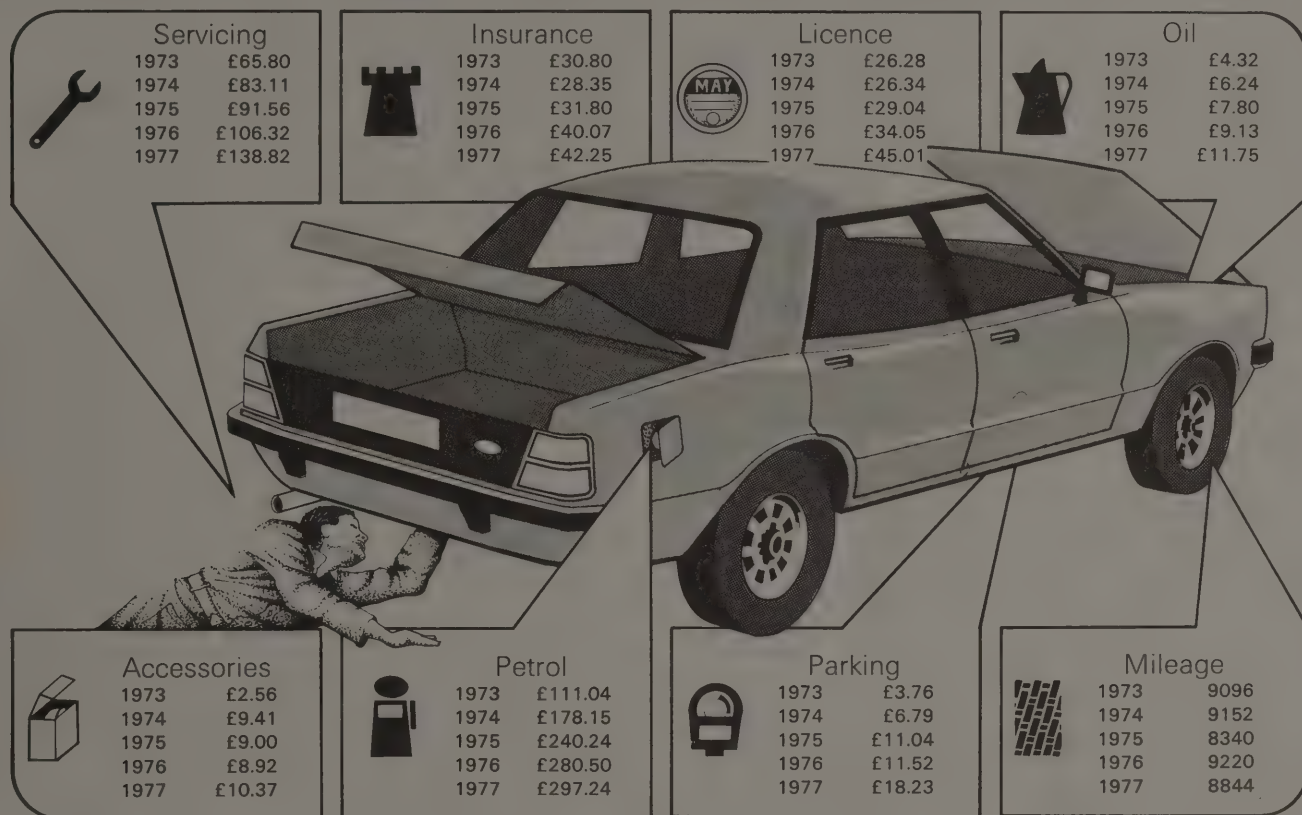
How much things have continued to swing the importers' way is not known. The signs are, however, that the foreign share of this vital market is growing steadily. The overseas competition admits as much, and a Leyland spokesman agrees: 'The foreign opposition has got more than just a foothold in fleet sales.'

To date, apparently, the foreigners' main success has been among small fleets (numbering fewer than 25 vehicles). Even so, according to Leyland's fleet operations director, Peter Sauvary, this represents a far-from-small number of sales—'probably around 200,000' a year.

Obviously this is worrying for the home

The way the money goes

DRIVE's Index, which has now been going for five years, gives motorists the chance to keep track of their costs—and budget for the future. Here's how:



IT ALL began in 1973, when a Mini cost £700 and a gallon of petrol was only 38p. But it couldn't last, and, as the cost of motoring began to soar, DRIVE launched the Index of Motoring Costs.

On 1 October that year, market researchers from an independent company set out to talk to a 1000 sample motorists all over Britain about the cars they drove, the miles they travelled, the petrol they bought and every penny that they used to turn a car wheel. The results were published in an Index that has become not only the authoritative guide for cost-conscious car owners but also a major source of research information for car and oil companies.

Since then, every month, a fresh batch of 1000 motorists has been

chosen in 100 areas throughout the country; within each area, six streets are taken at random and interviewers set out to question at least one driver from each street to make up the area's 10 interviews.

The results from these 1000 interviews are then added to those of the previous 11 months, ironing out seasonal differences, and—from the combined experiences of 12,000 motorists—the Index is drawn up.

Each Index contains three sets of tables: one showing month-by-month costs for all cars of all ages; one showing costs according to engine ratings, but only for cars less than 10 years old (to make comparisons more realistic—large cars, for example, are less likely to be affected by age); and a third table, again restricted to cars less

than 10 years old, costing out the running of individual cars or groups of cars. (The range of models in the Index is continually updated.)

Five main areas of expenditure are shown individually—petrol, oil, servicing plus repairs, accessories and insurance; motoring-organisation subscriptions, vehicle licence fees, parking and miscellaneous items made a sixth column in 1976.

Depreciation isn't shown in the tables, but it isn't ignored: the surveys cover all details of the cars owned by the interviewees (or driven principally by them); this information is, in turn, used to compile a separate, annual table of depreciation. The latest report of its findings was published in the November–December issue of DRIVE, alongside the usual Index of Motoring Costs.

MOTERING COSTS: tracing the trends

Those were the days . . .

THE latest DRIVE Index completes the fourth full year since the survey started. During this period nearly 50,000 motorists living all over England, Scotland and Wales have been interviewed about their motoring outlay.

As the Index was launched in October 1973, on the eve of the energy crisis, it has provided an invaluable record of motorists' reactions to the immediate effects of fuel shortages and rocketing prices, plus the effects over a greater period of the subsequent slump in Britain's economy and raging inflation.

The first Index, in the Spring 1974 issue of DRIVE, shows that fuel shortages kept mileage down during November and December 1973, so much so that the Index rose only one point during this first quarter of 1974.

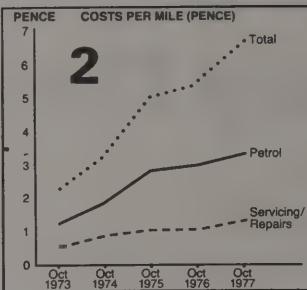
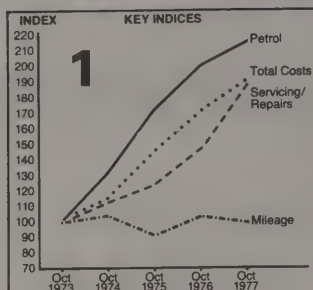
Several factors can be seen in this first table that developed into consistent trends: the decreasing expenditure on petrol by age of car—a result of lower mileages; the high cost-per-mile for Rovers; and the economy characteristics of Renaults.

It was not until Summer 1975 that the cumulative effects of large increases in petrol prices—up 18p just before Christmas 1974—a 40% increase in the vehicle licence and large rises in insurance premiums caused average mileage to fall to 144 miles per week, the lowest point recorded.

But the Index for Summer 1975, covering the 12 months up until February 1975, shows the beginning of this trend, and it was in this table that climbing annual running costs first broke through the £200 barrier.

By February 1975, the Hunter and Imp were putting Chrysler at the top of British manufacturers in the economy league, and the Japanese made their first impressive entry to the tables with a cost per mile of 3.26p, well below the all-car average of 3.95p.

Servicing/repair charts also showed that 10% fewer motorists were having services done at garages than there were in October 1973;



Interpreting the figures—graph 1 shows just how relentless the increase in motoring costs has been in the past four years. Petrol, of course, has been the villain of the piece, although the sharp rises of 1973–1975 have been followed by less spectacular increases in the last two years. But, on its own, this is misleading, for it doesn't take into account motorists' mileages. Graph 2 makes the point that, with mileage falling, the overall cost of driving your car for a mile has gone up even faster than petrol. While the cost of a service has increased according to graph 1, what motorists actually spend per mile on maintenance has increased much less slowly—an indication of how cost-conscious drivers have made economies

and, although the majority of these were opting for DIY or enlisting the help of a friend, 6% of all motorists claimed they had given up regular servicing altogether.

Despite the sharp increases in servicing/repair prices, the figures shown in that column of the Index didn't increase by nearly as much as those for total expenditure in 1974–76. During 1977, however, the cost-per-mile figures for this item have crept steadily upwards—an increase that may be partly the result of the cumulative effects of neglect over the last four years.

But a look back in detail over these four years shows up other trends, too. First, a change in the balance of British and foreign vehicles on the roads. In 1974–75 a consistent 82% of the sample of people with cars under 10 years old had British cars. During 1976 this gradually fell to 80%, but by October 1977 the proportion of British-car owners had dropped sharply by another 5%.

Then there is the changing demand for specific engine sizes: surprisingly, there have been falls in the cars under 1100cc (down from 31% to 26%), a rise in 1101–1300cc engines (up by 1.8% to 28.4%) and in the 1701cc+ group (from 17.6% to 21%).

Costs per mile have shown several changes in the least expensive and most expensive ratings, but certain bigger engined cars, such as Rovers,

Triumph 2000/2.5s, Vauxhall Victors/Magnums and Ford Consuls/Granadas, have naturally proved consistently expensive.

At the other end of the scale, since its debut in the tables over a year ago, the Leyland Allegro range has overall been the cheapest four-wheel car. The Leyland Mini, which in the early runs of the Index was shown to be consistently expensive on a cost-per-mile basis, has now become the second-cheapest range, although its low mileage—higher only than the ageing BLMC 1100/1300 range—still gives it a particularly high servicing/repair cost-per-mile figure.

Other information uncovered in the course of the Index surveys shows how motorists have reacted to increases in motoring costs by making economies in other fields, showing how important they find it to continue motoring, even though they have to cut back on non-essential mileage. But 1977 showed an increasingly optimistic picture, particularly after August when signs of economic recovery began to show and when petrol prices fell sharply due to the cut in VAT.

And the Index hasn't stopped growing. This year, a new feature is to be added: the 'reliability index', showing average days off the road for cars in the tables.

Stand by to see whom the Index finger will point out . . .

ALL CARS—DRIVE Summer 1973

Privately owned	Index at 31 Dec 1973 (Oct 31 = 100)
Petrol	95
Oil	34
Parking/tolls	49
Garaging	36
Servicing/repairs	126
Accessories	149
Insurance	103
Road tax	100
Motoring organisations	110
Others	100
TOTAL*	101

After deducting allowances received from

	Index at 31 Dec 1973 (31 Oct = 100)
	101

All cars per-mile average for October to D

ALL BRITISH

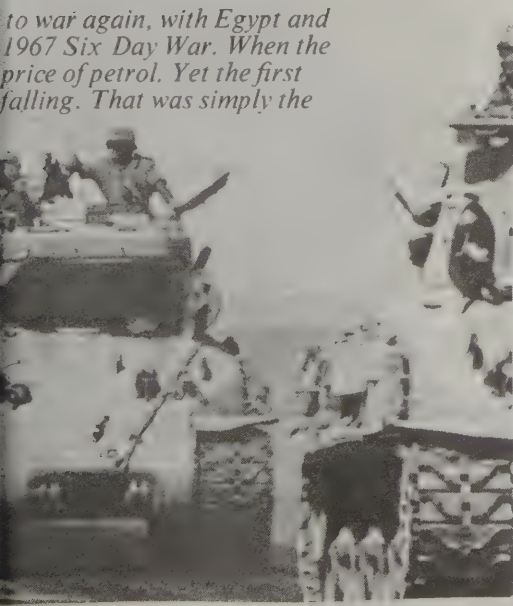
	Index at 31 Dec 1973 (31 Oct = 100)	Average weekly (1 Oct 31 Dec)
Petrol	99	£
Oil	73	
Parking/tolls	57	
Garaging	100	
Servicing/repairs	114	
Accessories	100	
Insurance	104	
Road tax	100	
Motoring organisations	100	
Others	80	
TOTAL*	102	£
Less allowances from employers	—	
All-car total*	102	£
Per mile average for all British cars 2.33p		
*Excluding depreciation.		

1973 The Middle East allies trying to regain territories lost to dust settles, little has changed—except the DRIVE Index (above) shows petrol costs result of those long queues at petrol pumps throughout Britain: we just couldn't buy the stuff












Cost per month		
October	November	December
£9.50	£9.21	£9.05
.58	.30	.20
.33	.14	.16
.17	.08	.06
4.58	6.08	5.79
.17	.22	.25
2.50	2.63	2.57
2.18	2.19	2.20
.17	.19	.19
.17	.17	.17
£20.35	£21.21	£20.64
Average monthly costs for year to 28 Feb 1975		
Costs per quarter	October	November
£19.35	£20.19	£19.64
*Excluding depreciation		

ALL FOREIGN		
	Index at 31 Dec 1973 (31 Oct = 100)	Average weekly cost (1 Oct-31 Dec)
Petrol	95	£2.47
Oil	50	.08
Parking/Tolls	67	.08
Garaging	50	.02
Servicing/Repair	117	1.32
Accessories	100	.02
Insurance	104	.76
Road Tax	100	.50
Motoring organisations	100	.05
Others	100	.09
TOTAL*	101	£5.39
Less allowances from employers		59
All-car total*	101	£4.80
Per mile average for all foreign cars 2.47p		
*Excluding depreciation.		



1975

No news is . . . the Ryder Report. The cumulative effect of rocketing petrol prices, a 40% increase in the road-fund licence and hefty rises in insurance premiums have left the British motor industry—not to mention the British motorist—in a bad way. Lord Ryder gives the treatment to Leyland, HMG gives Chrysler a massive financial injection . . . and the motorist is left to find his own cure: the Summer 1975 Index (above) monitored weekly mileage slumped to an all-time low of 144

Index for year ending 28 Feb 1975 (31 Oct 1973=100)											TOTAL	
ALL CARS	INDEX	144	71	105	120	109	97	99	106	134	125	
Costs per quarter	Mar-May	47.46	1.53	1.79	21.90	2.27	6.97	6.55	0.59	1.87	90.93	
	June-Aug	49.91	2.06	2.31	23.45	2.45	7.19	6.60	0.56	2.28	96.81	
	Sept-Nov	48.47	1.49	1.86	20.52	2.61	7.19	6.60	0.54	3.50	92.78	
	Dec-Feb	55.20	1.56	1.65	21.84	1.77	7.65	6.60	0.57	3.21	100.05	
Total costs for year		201.04	6.64	7.61	87.71	9.10	29.00	26.35	2.26	10.86	380.57	
Average monthly costs for year to 28 Feb 1975		16.75	0.55	0.63	7.31	0.76	2.42	2.17	0.19	0.91	31.71	
COST BY AGE OF CAR	1972-74	19.30	0.46	0.81	5.61	1.04	2.78	2.13	0.26	0.65	33.04	
	1970-71	18.08	0.53	0.75	7.41	0.81	2.73	2.16	0.22	1.04	33.73	
	1968-69	16.36	0.56	0.66	8.97	0.81	2.66	2.20	0.20	0.96	33.38	
	1964-67	13.96	0.68	0.43	5.92	0.47	1.64	2.26	0.13	0.81	26.30	
COST BY ENGINE CAPACITY	Pre-1964	13.82	0.65	0.42	5.50	0.47	1.68	2.26	0.13	0.55	25.48	
	-900cc	11.67	0.60	0.49	5.35	0.45	2.14	2.20	0.16	0.72	23.78	
	901-1100cc	12.90	0.57	0.64	6.78	0.77	2.10	2.20	0.18	0.91	27.05	
	1101-1300cc	15.77	0.47	0.61	6.98	0.66	2.39	2.19	0.20	0.89	30.16	
MODEL BY MODEL	Costs per month	1301-1700cc	18.39	0.56	0.58	7.33	0.97	2.41	2.21	0.18	0.73	33.36
	1701cc+	23.22	0.64	0.84	9.53	0.78	2.97	2.18	0.21	1.26	41.63	
	Ford Escort	Index	137	73	82	128	161	91	102	100	193	125
	4.21p per mile	Cost £	4.11	0.11	0.18	1.71	0.29	0.63	0.51	0.05	0.29	7.88
MODEL BY MODEL	Ford Cortina 1300	Index	145	73	73	89	67	86	102	80	113	115
	3.67p	Cost £	4.34	0.11	0.16	1.19	0.12	0.59	0.51	0.04	0.17	7.23
	Ford Cortina 1600+	Index	178	67	73	138	83	101	100	100	40	142
	3.86p	Cost £	5.33	0.13	0.16	1.85	0.15	0.70	0.50	0.05	0.06	8.93
	Ford Capri	Index	176	160	132	165	350	109	100	80	773	177
	5.14p	Cost £	5.28	0.24	0.29	2.21	0.63	0.75	0.50	0.04	1.16	11.10
	BLMC Mini	Index	93	93	82	122	33	78	100	100	73	96
	3.76p	Cost £	2.80	0.14	0.18	1.64	0.06	0.55	0.50	0.05	0.11	6.03
	BLMC 1100/1300	Index	107	87	73	110	72	78	100	120	73	101
	3.86p	Cost £	3.22	0.13	0.16	1.47	0.13	0.54	0.50	0.06	0.11	6.32
	Morris Marina	Index	129	67	77	75	139	86	98	120	207	109
	3.84p	Cost £	3.88	0.10	0.17	1.00	0.25	0.59	0.49	0.06	0.31	6.85
Austin Maxi	Index	159	73	100	137	122	75	100	140	53	133	
3.64p	Cost £	4.78	0.11	0.22	1.84	0.22	0.52	0.50	0.07	0.08	8.34	
Rover 2000/3500	Index	238	93	132	152	78	126	100	120	40	179	
4.60p	Cost £	7.13	0.14	0.29	2.04	0.14	0.87	0.50	0.06	0.06	11.23	
Vauxhall Viva	Index	128	73	73	100	111	84	100	100	73	110	
3.73p	Cost £	3.85	0.11	0.16	1.34	0.20	0.58	0.50	0.05	0.11	6.90	
Other Vauxhalls	Index	180	60	55	183	83	96	100	100	387	159	
4.62p	Cost £	5.39	0.09	0.12	2.45	0.15	0.66	0.50	0.05	0.58	9.99	
Chrysler Avenger	Index	142	67	73	137	61	86	100	100	147	124	
4.01p	Cost £	4.26	0.10	0.16	1.83	0.11	0.59	0.50	0.05	0.22	7.80	
Hillman Hunter	Index	152	73	109	78	83	91	100	140	20	117	
3.51p	Cost £	4.56	0.11	0.24	1.05	0.15	0.63	0.50	0.07	0.03	7.34	
All British	Index	141	80	77	125	106	88	100	100	140	124	
4.01p	Cost £	4.23	0.12	0.17	1.68	0.19	0.61	0.50	0.05	0.21	7.76	
VW Beetle	Index	126	47	64	151	89	86	100	100	120	120	
4.04p	Cost £	3.79	0.07	0.14	2.03	0.16	0.59	0.50	0.05	0.18	7.51	
All German	Index	133	67	77	125	144	96	100	120	93	120	
3.92p	Cost £	3.99	0.10	0.17	1.67	0.26	0.66	0.50	0.06	0.14	7.55	
All Renaults	Index	121	53	77	90	167	84	98	120	273	110	
3.66p	Cost £	3.64	0.08	0.17	1.20	0.30	0.58	0.49	0.06	0.41	6.93	
All French	Index	130	53	95	84	156	86	98	120	167	111	
3.45p	Cost £	3.91	0.08	0.21	1.12	0.28	0.59	0.49	0.06	0.25	6.99	
All Fiats	Index	107	40	59	196	250	96	100	100	13	123	
4.77p	Cost £	3.22	0.06	0.13	2.63	0.45	0.66	0.50	0.05	0.02	7.72	
All Japanese	Index	122	27	59	38	239	103	98	100	153	100	
3.26p	Cost £	3.66	0.04	0.13	0.51	0.43	0.71	0.49	0.05	0.23	6.25	
All Foreign	Index	128	53	86	113	178	94	98	120	100	116	
3.69p	Cost £	3.84	0.08	0.19	1.51	0.32	0.65	0.49	0.06	0.15	7.29	

MOTURING COSTS: November 1976- October 1977

1977

An optimistic picture at last: we're getting out on the road more and motoring costs show only a small increase

THIS latest Index shows a happier picture: motorists are using their cars more, and the rise of one point for total costs is the smallest increase since the summer of 1976, at which time static costs were matched by static mileage and the repair/servicing expenditure showed a dramatic fall.

The monthly analysis shows that the main reasons for the very limited increase in total costs were a small fall in the servicing/repair figure following the early summer peaks, and petrol-price reductions in late summer. These factors balanced a sharper upward trend in the other categories.

For example, other items (motoring-organisation subscriptions, vehicle licence, parking and so on) rose by six points to 187, and insurance costs rose by 3p in the £ to £42.25.








With a small increase in average monthly mileage from the 721 miles per month shown in the last issue of DRIVE, the total average cost per mile for the year has fallen by 0.5p to 6.59p, the 5.75p shown for September being the lowest for the whole of the 12-month period.

Model-by-model comparisons also look hopeful: several cars have again fallen to below 5p per mile. The Leyland Allegro at 4.71p has regained its lead in the economy stakes, its temporary successor, the Ford Escort 1300, having shown a lower rate of decrease to 4.80p. Newcomers to the table, the Renault 15 and 17 ranges, highlight the overall economy of this French manufacturer's products with a figure of 4.82p.

At the other end of the scale the picture remains virtually unchanged with the larger Fords continuing at well over 8p at 8.37p, followed by the ageing Leyland 1100/1300 range at 7.21p, and the larger Vauxhalls at 7.16p.

Several newer models are now common enough to be

continued

INDEX	101	190	213	126	190	123	141	187	191
Oct 1973 = 100									
MONTH-BY-MONTH ANALYSES (all cars) AND ENGINE RATING ANALYSES (post-1968 cars)									
			Petrol	Oil	Servicing repairs	Accessories	Insurance	Other costs	TOTAL
November 1976	680	6.58	23.77	1.23	9.77	0.80	3.63	5.54	44.74
December 1976	685	6.19	23.76	0.58	8.92	0.56	3.46	5.08	42.36
January 1977	680	6.74	23.01	0.54	11.96	0.75	3.65	5.91	45.82
February 1977	672	6.40	23.60	0.67	8.97	0.53	3.77	5.46	43.00
March 1977	709	7.30	25.60	0.69	11.84	1.03	3.82	8.85	51.83
April 1977	706	7.07	24.82	1.14	12.90	0.73	3.76	6.55	49.90
May 1977	677	7.39	24.67	1.70	13.40	0.65	2.93	6.67	50.02
June 1977	677	7.39	26.28	0.95	12.78	1.84	3.08	7.21	52.14
July 1977	757	6.89	27.01	1.11	15.33	1.18	3.07	8.66	56.34
August 1977	847	6.65	26.23	0.81	11.01	1.71	3.02	7.39	50.19
September 1977	868	5.79	24.39	0.70	10.86	0.15	4.09	7.13	47.32
October 1977	823	5.75	24.10	1.63	11.08	0.44	3.97	7.49	48.70
TOTAL (for year)	738	6.60	297.24	11.75	138.82	10.37	42.25	81.94	582.36
-900cc	737	6.61	14.88	0.44	10.11	1.02	3.37	4.83	34.63
901-1100cc	568	6.10	19.80	0.74	9.90	0.98	3.48	5.89	40.80
1101-1300cc	679	6.01	23.71	0.53	9.54	1.05	3.64	6.30	44.76
1301-1500cc	755	5.93	25.49	0.73	7.56	0.37	3.67	8.10	45.93
1501-1700cc	759	6.05	33.66	0.69	12.06	2.03	4.10	7.12	59.66
1701cc+	982	6.07	36.69	1.12	16.38	0.82	4.67	8.42	68.09
MODEL-BY-MODEL ANALYSES (post-1968 cars)	983	6.93							
Chrysler Imp	619	5.29	15.51	0.80	7.75	0.00	3.21	5.47	32.75
Avenger	817	6.10	27.54	1.16	7.38	2.31	3.52	7.98	49.89
Hunter 1500/1750	838	6.53	28.56	0.73	6.77	0.11	3.91	14.65	54.72
Datsun Cherry/Sunny	758	5.16	20.99	0.23	7.36	0.09	4.25	6.22	39.14
Fiat 500/127	515	6.20	13.76	0.14	7.85	1.06	4.01	5.13	31.96
Fiat 128/124	741	6.74	26.07	0.68	12.19	0.16	4.44	6.39	49.92
Ford Escort 1100/Popular	812	5.47	25.67	0.67	7.88	0.75	3.54	5.90	44.41
Escort 1300	812	5.47	28.90	0.36	6.18	1.92	3.71	5.20	46.27
Cortina 1300	963	4.80	29.00	0.36	5.69	0.06	3.60	6.34	45.06
Cortina 1600	828	5.44	36.06	0.74	11.72	0.23	3.77	7.47	59.99
Cortina 2000	1031	5.82	42.47	0.75	11.17	0.84	4.80	6.68	66.72
Capri 1600	1163	5.74	33.46	0.93	16.18	7.27	4.59	6.75	69.18
Granada/Consul	991	6.98	51.89	2.88	38.87	0.58	4.93	15.06	114.22
Leyland Mini	1365	8.37	15.55	0.86	9.21	1.79	3.32	5.86	36.58
1100/1300	628	5.83	18.79	1.16	9.25	0.56	3.28	5.68	38.72
Allegro	537	7.21	24.79	0.31	2.94	1.20	3.79	6.56	39.59
Maxi 1500/1750	841	4.71	27.36	1.05	11.99	0.09	3.72	7.32	51.52
Marina 1300	887	5.81	25.93	0.59	12.24	2.51	3.34	6.33	50.94
Marina 1800	844	6.03	30.12	2.10	7.22	0.59	3.96	5.71	49.68
Princess 1800/2200	795	6.25	27.95	1.73	8.50	0.04	4.14	5.32	47.67
Rover 2000/3500	826	5.77	37.99	0.49	20.24	0.00	4.68	6.46	69.86
Triumph Toledo/Dolomite	983	7.11	22.89	0.62	4.53	1.08	3.88	6.04	39.04
Triumph 2000/PI	623	6.27	35.14	1.08	7.80	1.45	4.33	6.73	56.52
Renault R4/R6	810	6.98	17.71	0.40	6.53	3.46	3.45	5.81	37.35
Renault R12	575	6.49	23.80	0.22	24.68	0.01	3.60	6.67	58.98
Renault R15/R17	706	8.35	29.44	0.78	1.87	0.41	4.42	6.74	43.66
Simca 1000/1100	907	4.82	19.64	0.14	15.95	0.00	3.39	5.64	44.77
Vauxhall Viva	635	7.05	21.74	0.70	7.59	1.21	3.37	7.35	41.96
Victor 1800/2300	680	6.17	31.71	1.27	12.89	0.25	3.66	7.48	57.26
VW Beetle	800	7.16	22.41	0.07	8.43	0.42	3.34	5.48	40.14
All Chrysler UK	745	5.39	26.85	0.92	7.39	1.21	3.64	9.14	49.15
Fiat	829	5.93	22.34	0.36	12.12	0.47	4.49	6.02	45.80
Ford	678	6.75	33.56	0.80	11.48	1.42	3.97	7.00	58.24
Leyland	991	5.88	25.08	0.91	9.87	1.16	3.80	6.43	47.26
Renault	744	6.35	22.35	0.40	11.45	1.46	3.71	6.42	45.78
All Simca	721	6.35	21.88	0.29	14.39	0.01	3.51	5.75	45.82
Vauxhall	721	6.23	24.42	0.73	8.98	0.94	3.50	7.28	45.84
All British	736	6.16	27.76	0.85	10.68	1.20	3.79	7.01	51.29
Foreign	832	6.61	26.28	0.41	13.85	0.63	4.32	6.80	52.29
French	791	6.01	23.24	0.34	10.71	0.85	3.79	6.16	45.09
Italian	750	6.53	25.11	0.46	11.88	0.40	4.63	6.44	48.91
Japanese	749	6.53	26.23	0.32	6.15	0.12	4.62	8.66	46.10
W. Germany	825	5.59	29.68	0.52	21.24	0.29	4.49	6.28	62.49
	837	7.47	Average monthly costs (£), excluding depreciation						
			Cost per mile (pence)						
			Average monthly mileage						

Some of the people behind the statistics

Asking the Index questions... in Kent

EVE MUMMERY has been a market researcher for 15 years with some dozen firms, and has worked on the DRIVE Index for two years. She says: 'I like the freedom of movement the job allows—nine to five doesn't suit me at all.'

Born in Germany, she has worked as an interpreter at British HQ in Berlin and as a teacher. 'I came to this country in 1949 for a holiday, but met my husband, so here I still am at 50 years old.'

'I was sure when I started this sort of work that after I had had the door slammed in my face a few times I should be looking for a new career—but it's surprising how nice people are in their own homes, and only about half a dozen have told me to go away.'

'I've been involved in all sorts of domestic incidents from chasing the dog that got loose to hanging on to babies. On another occasion I had a short, sharp interview with a man who was rushing out to an appointment. After we'd parted I realised I had left my keys at his house. I spent a worrying day, doing

the rest of my calls on foot and wondering if perhaps I would have to sleep on the streets.

'It's the little incidents that give you a laugh when you're working.'

in Hertfordshire

CONNIE RYLEY, 60, was a manageress in a chemist shop until she answered an ad in the local paper to become a market researcher. That was more than 10 years ago, and she's been 'door-knocking' ever since.

'I've always found people very pleasant,' says Connie, 'even though some of the questions asked are none-too-easy to answer. Of course you do get the odd person who's difficult. Once, I remember, I was talking to a woman when her husband came back from work; he was furious that his wife should have been answering my questions, and he told me to leave the house immediately.'

'But I think it was another door-knocking friend of mine who had the worst experience: she called at a house where the door was opened by a man wearing nothing but a medallion round his neck. She didn't know what to say or do, so she just carried on

quite calmly with the survey...'

And answering them... in Dorset

CHARLES KNIGHT FOSTER thinks that if people really worked out the cost of motoring—they wouldn't motor.

He is a 61-year-old electrical service engineer and spends a lot of time on the road, covering 500 miles a week. He has just changed his Simca, which he had for 2½ years, for a Datsun 120 estate which had 800 miles on the clock. 'I always buy something with a low mileage—you save quite a bit of cash and all the faults have been ironed out.'

He buys foreign because he has been disillusioned by the British cars he has had. 'People think parts are expensive, but so far I haven't needed many.'

Although he trained as an army motor transport fitter, he isn't interested in DIY any more and lets his son-in-law do all his servicing.

in Worcestershire

PETER BAYNES has done two surveys for DRIVE. He is a 53-year-old profile engineer and a very keen motorist and DIY mechanic who does all his own servicing, going to a

garage only when he doesn't have the facilities to do a job.

Five years ago he bought a Leyland Marina 1.8 which he is delighted with and still runs—'I've got a good 'un this time.' He's done 22,000 miles in his Marina, using the car only to go the walking distance to work, and in the summer every weekend for towing the family caravan to Radnor. 'I reckon towing is quite easy, so long as you remember you've got something behind you.'

in Clwyd

AUBREY LUCAS is 67 and retired now, but spent his working life in the motor trade, latterly running his own garage with a Renault dealership. He is no novice to surveys, either, having helped Gallop with car trade ones.

He would own a Renault if there was a friendly local dealer. He does quite a bit of his own servicing, but says: 'I really prefer not to get my hands dirty any more, and I never do it in the winter—it's too cold.'

He ran a Leyland Marina 1.3 and was so satisfied with it and the service he got that he recently replaced it with a new one. His wife is also happy with the car.

WHAT THE LATEST INDEX AND SURVEY SHOW continued

incorporated into the latest Index. The Leyland Princess range shows a very competitive 5.77p per mile for its group (1700cc+); but motorists pay heavily for Volvo reliability and robustness—the cost per mile of 7.29p is the highest for any range of cars, beating the 7.11p for Rover.

The other entrants have a lower cc and are foreign—Fiat's 500/127s and 128/124s, Renault's R4/R6s and 12s and Simca's 1000/1100s. It will be interesting to see how these newcomers fare in the months to come.

Why do we buy foreign?

DRIVE's researchers interviewed more than 900 motorists who had bought new cars in the last 12 months to find out why motorists choose to buy British or foreign (see also this issue's fleet-car story

on page 32). Just under two-thirds of the 900 bought British.

Those buying foreign seem more likely to be lower-mileage motorists—70% of import buyers travel less than 10,000 miles per year—and older: 4% of motorists aged under 24 bought British, as against only 2% who bought foreign. The age pattern was reversed for buyers between 24 and 44, 29% opting for foreign cars as against 24% who bought British.

Breaking down the statistics by sex, female motorists seem more likely to own foreign vehicles, with 29% of new foreign car owners being women compared with 24% of men. Looking at socio-economic group differences, 38% of foreign car buyers were higher-managerial/professional people, 10% less than the comparative proportion for British cars; but blue

collar workers accounted for 36% of British-car purchasers compared with 30% of foreign buyers.

There was little difference in the buying habits of married and single motorists, but those with children under 15 were considerably more likely to buy foreign (45% foreign, 36% British). The gap was widest when there were children aged under five, this group making 17% of foreign car purchases, 6% more than of British sales.

Analysis by region showed that the two areas most favouring British cars were the West Midlands and the North West. Looking at engine capacities, the 31% of foreign cars with engines under 1100cc compared well with the 17% of British cars; in the 1700cc+ groups, the proportions were reversed—14% and 24% respectively. The average price paid

showed only a small difference—£2111 for a British car and £2164 for foreign.

Among UK buyers, loyalty or patriotism was a major consideration for over a third of the sample, while 12% said they always bought the same make of car; 15% thought spares were easier and cheaper to buy, and 21% just liked the car chosen.

Of those buying foreign, this last factor proved the most important for half of the sample; another third said that their car represented the best deal they could get at the time—a reason mentioned by only 19% of British purchasers.

Surprisingly, while 12% thought foreign cars were more durable or reliable, these factors were not mentioned by owners of British cars. But 19 out of 20 were influenced by ease of availability at the time of buying.

Motorists SAVE £10

(and you could ruin your holiday abroad)

When you add up what it costs to have a motoring holiday in Europe, cutting corners to save money seems very tempting.

But it only takes one slight mishap to make your whole holiday disappear into thin air. And, heaven knows, even the most carefully planned trip can go wrong. It seems far more sensible to spend a few more pounds to ensure everything goes well.

Exactly what AA 5 Star Service sets out to do.

From around £10, what's known as Vehicle Security provides protection in the event of the loss of your car through breakdown, fire, accident or theft.

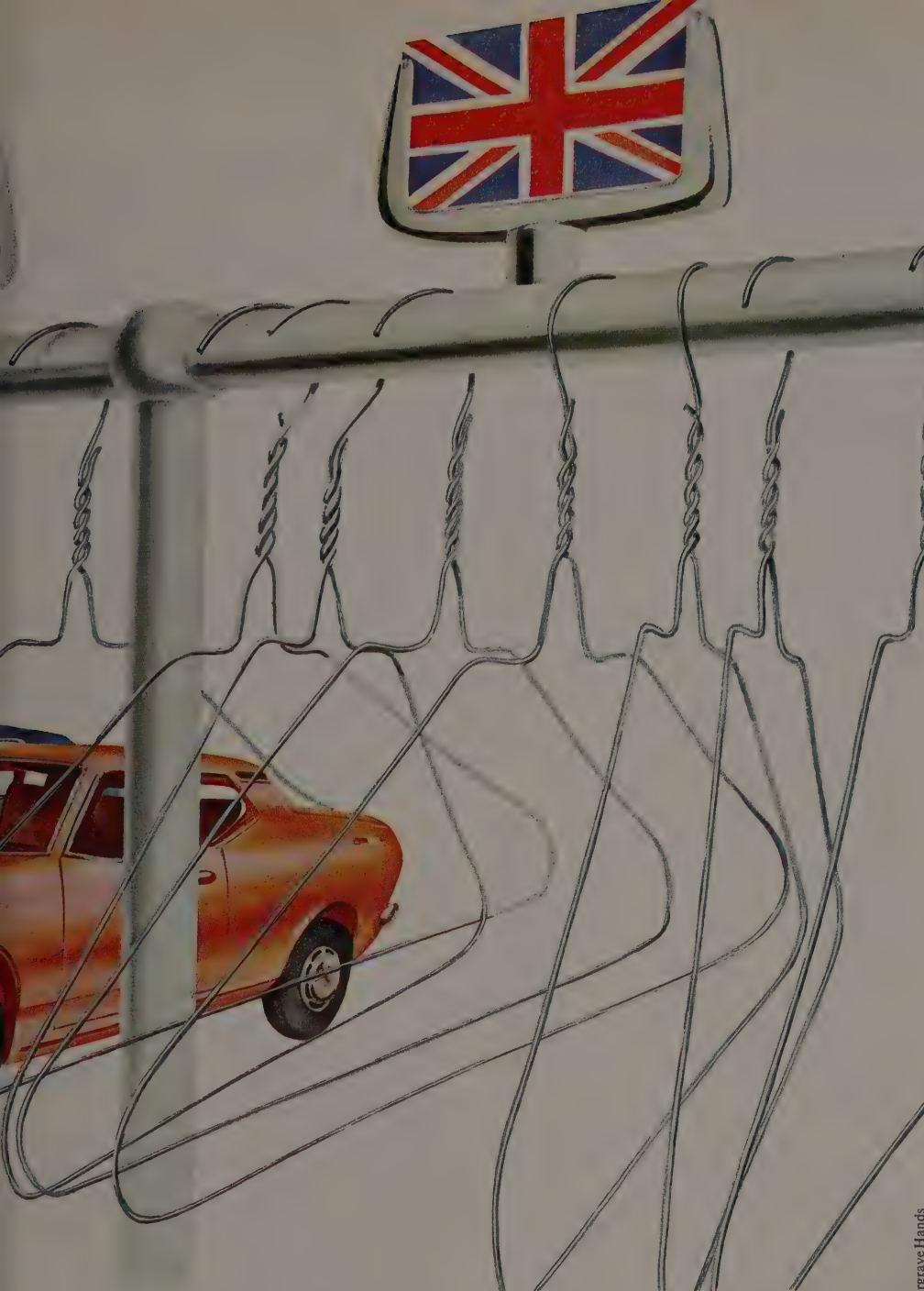
However, if you feel further cover is necessary (and it never pays to under insure),

a few extra pounds will ensure that if your car is off the road for more than eight hours, you can claim additional travel and accommodation costs. For instance, if quick repairs are not possible locally, we will help with car hire and ship yours back home.

Besides your car, you can take out additional protection for you and your family against loss of money, luggage and medical expense, if you're unlucky enough to need it.

You don't have to be a member of the AA to take out 5 Star Service, although if you are, you benefit from additional services. AA 5 Star Service is available from any AA office or most travel agents. Call in and get full details.





fleet manager takes the decision to go partly or wholly foreign and overcomes the teething troubles of servicing problems and parts availability, it becomes very hard for British manufacturers to win back his allegiance and custom.

A Ford spokesman spells it out: 'You don't know that you are in danger of losing orders until it is too late. And if you lose a few fleet customers, you are in danger of losing the lot. In the end, you get transport managers provisionally ordering cars months ahead, but with little or no serious intent to follow through on the orders.'

Why can't home producers guarantee delivery? The answers are the all-too-familiar disputes and inefficiency that ensure starvation shortages in a market that's booming as more and more firms offer a wider range of employees the perk of a car to keep them happy in these days of pay restriction. (The UK is, in fact, one of the few world car markets tipped to grow in 1978.)

Much of the trouble lies not with car manufacturers but with components producers. As *DRIVE* goes to press, Leyland reports that no fewer than 14 of its major suppliers are suffering industrial action. Ford says that three firms on which it is dependent for parts are strike-bound, and that several others are working to rule.

Last year, these and other industrial skirmishes, including the lengthy Joseph Lucas stoppage and disputes in the car plants themselves, cost Leyland and Ford an estimated 100,000 and 70,000 cars respectively.

Says Leyland: 'All the fleet operator is interested in is getting the right goods at the right time at the right quality and at the right price. He can't afford to be kept waiting. And he's certainly not interested in excuses. Even if it's not our fault—when, say, delay has been caused by a components supplier—it's the manufacturer who gets it in the neck.'

Of availability, Leyland fleet-sales boss Sauvary comments: 'On 1 August last year, when Leyland had about 25% of the UK market share, we had 35,000 vehicles in the hands of the dealers and distributors, and the same number in transit. Ford, with around the same market share, had 30,000 cars for sale around the country and a similar number in transit. On the same day, the foreign opposition between them commanded a 35% share of the market... and had 210,000 cars that could be bought off the shelf in their showrooms. That shows just what we're up against.'

If only it could have produced more cars last year, says Leyland, it could have increased its domestic market share to 30%—partly at the foreign competitors' expense.

The problems of trying to stick stubbornly to a buy-British policy can be illustrated by the experiences of Rank Xerox, the photocopying giant, Visionhire television rentals, Kenning and Hertz car-hire giants and IBM, the computer firm.

Rank Xerox runs a fleet of 3500 cars and

producers, but the economics division of the Society of Motor Manufacturers and Traders has even more bad news: 'The indications,' says a spokesman, 'are that the overall percentage of imported models in the fleets may have doubled over the last four years.'

Clearly, there has been a mass defection among Britain's company-car fleet managers, even though it's not so long since most of these men would have seen their salesmen and executives walking, rather than driving Toyotas and the like.

The reason for the switch in loyalty is not a question of, say, reliability. It's *availability*.

British manufacturers simply cannot come up with the goods when the fleet transport managers want them. It's not uncommon for them to have to wait six months or more for their fleets to be

replaced by new models, and the delays are costly. As mileage increases, so do maintenance and repairs; cars spend more time off the road; employees become disgruntled; and the cars' resale values are lowered. The final insult is that, when finally the fleet changeover does take place, the replacement cars may have suffered up to two price rises.

Most fleet operators say that they still prefer to buy British, but that they are being forced to buy foreign simply because imported makes are instantly available 'off the peg'. And there's now less resistance to the idea because, with more and more privately-owned foreign cars on British roads, 'foreign' is less and less a dirty word among transport managers.

Nor is this likely to be just a phase—an irritable reaction to the British industry going through a bad patch. For once a

reports 'availability problems', particularly with Chrysler Avengers. (Chrysler, through a combination of reorganisation and a shortage of cars, has been forced to restrict fleet sales to 20% of its home market production; it already has a waiting list for 17,000 Avengers.) Ford Cortinas are in equally short supply.

Rank Xerox replaces cars after three years or 50,000 miles, but currently it is having to hold on to models for anything up to 80,000 miles—which clearly affects resale values. On top of this, it is having to rent cars to fill the gaps—more unwanted expense.

Visionhire has become so disenchanted with late deliveries—it buys 800 cars a year, and is at present 400 vehicles behind schedule—that it has warned Ford that, if its orders are not met by April, it will 'go European'—possibly to Renault.

Kenning has now actually gone ahead and bought 100 Fiat 131s to replace top-range Cortinas that couldn't be supplied in time. Says general manager Gordon Roe: 'Had Ford been able to deliver, we probably would have ordered 400 more of its Cortinas.'

Hertz, too, was forced to shop for foreign cars last summer when, unable to give more than three weeks' notice of its requirements, it discovered that British manufacturers couldn't cope. Hertz leased 300 cars from Renault. (For tax reasons, companies often find it cheaper to lease cars from manufacturers, rather than buy.)

Similarly, IBM found that Fords weren't available when required. It opted for Fiats and Renaults which arrived within four weeks of ordering.

But one of the quietest—and most significant—successes chalked up by the foreign challengers has been in the driving schools. A recent survey by the Motor Schools Association reveals that, while very few L-schools ran foreign cars before 1973, there has been a dramatic revolution, and that the Datsun Sunny and Cherry have now replaced the Ford Escort as the schools' most popular choice.

With 62% of the 900 schools taking part in the study being one-car operations, the numbers involved don't, at first glance, seem to represent much of a threat; hardly

GONE TO FOREIGN PARTS

It's not just the car makers that are in danger of losing out to the foreign challenge. The signs are that component firms are threatened, too—and for the same reason.

Figures for January to October 1977 show that the number of *imported parts and accessories* rose by more than 70% over the previous year, while Britain's component-export performance grew by only 24%. We are still showing a 'balance of payments' profit, but last year was the first time ever that this surplus hasn't increased.

One reason has been the supply shortages caused by industrial action in components factories, forcing the car giants to shop abroad for parts to keep their own assembly lines running. Buying similar components from various suppliers is now common.

a foreign sales bonanza. In fact, according to the MSA, it is only about 1300 cars.

But to dismiss the foreigners' success is to miss the point. For the MSA goes on to say that L-school pupils tend to buy, as a first car, the make and frequently the model on which they learned to drive.

The MSA calculates that 28% of cars run by schools are now foreign. And, with more than a million learners taking professional tuition every year, it follows that 250,000 or more potential customers are being strongly influenced to buy foreign.

In fact, the driving schools apart, Datsun has not been especially active in the fleet-sales market. But it looks as if it is about to become so, after experimenting in a small way in the leasing field. 'We've put our toe in the water to see what the temperature is,' says a spokesman. 'If there is a chance of fleet-market activity in 1978, we might go in—tentatively.'

Given Datsun's remarkable success in the private sector, this cannot be good news for the British manufacturers. And other foreign producers are planning similar sorties . . .

The importers of Subaru, the latest Japanese newcomer, have high hopes of attacking the fleet market with the 1600 four-wheel-drive estate. Colt, another comparatively recent arrival from Japan, can be expected to make an assault on fleet sales as soon as adequate supplies of its Lancer are available. Peugeot anticipates success with its new 1½litre 305, due

available. 'Our people simply are not prepared to wait four months or more,' says a spokesman. 'Not when the overseas competition can deliver straight away.'

It is still Barclays' policy to buy British for its chauffeur-driven fleet . . . but it is also having to wait up to six months for these Rovers and Fords.

Since Rank Xerox allowed its management a free choice ('we simply couldn't get equivalent British cars'), half of its 700-strong executive fleet has gone foreign.

Just how well the overseas competitors are faring can be gauged by the fact that a third of Audi 100 sales and three-quarters of Volvo 200 sales in the UK are to company executives; Fiat, Renault, Citroen, Peugeot, BMW and Mercedes also report brisk business with their up-market models. And this at the expense of top-of-the-range Fords, Rovers, Jaguars and Triumphs.

in Britain this summer, and Citroen, too, admits that it probably won't be long before it takes the fleet-market plunge with its GS range.

Even the Russians are coming, building old Fiat-based designs as the bargain-price Lada. Its UK importer reveals that it has been approached by two substantial car hire companies and is making inroads into the taxi business. It is also in the throes of expanding its dealer network in London and the West of England in the hope of attracting more fleet sales here.

Of those already in this market, Renault reports that, while fleet sales accounted for only 2% of its UK sales at the start of 1977, that figure had risen to 10% by the end of the year, with the Renault 16 and 15TL spearheading the challenge; Volkswagen (now that the £ is gaining strength) is making an impression with its Golf, Polo and Passat range; and Fiat's 131, after only 18 months in the UK fleet market, has topped 10,000 sales—15% of the Italian car maker's total British sales.

Can British manufacturers beat off this competition? Says Tony West, fleet sales manager for Opel: 'I don't think that there will be an immediate swing to importers in the very large fleets. But, unless the domestic manufacturers can honour their delivery promises, importers must make significant inroads into the overall fleet-car market.'

Ford's answer is that it is suffering from the fact that it has the two top-selling model ranges in the UK—the Cortina and the Escort. Demand outstripping supply is a problem that many industries would welcome, but in the fleet-car market it clearly has its drawbacks, and Ford is in danger of losing out in the long term. It is reluctant to take the gamble of upping production, arguing that this can take up to eight months to arrange, by which time the need may no longer be there.

Only time will tell whether Ford is right . . . or wrong.

Chrysler's main objective this year will be to double its allocation of models to fleet operators.

Leyland, meanwhile, is in the throes of laying the foundations of a better tomorrow. Its plans include placing 3000 of its most popular fleet cars at strategic points around the country to ease availability difficulties, and to put one Princess each in the hands of 300 big fleet operators to prove that the model's teething troubles have been overcome. It is optimistic, too, that the recent collective bargaining agreement will mean uninterrupted production. And it has reorganised its components-supply strategy: like the three other big manufacturers, it aims to have more than one supplier of all parts, and so avoid being crippled by one outside strike at a components factory.

And if these policies don't work? If managements and unions can't work together? Maybe, as SMMT president and Rolls-Royce group managing director David Plastow has said: 'There won't be a UK motor industry left to fight over.' ●

GLOOM AT THE TOP

Home manufacturers facing the foreign challenge to their mass-selling cars in the fleet market are also finding themselves in choppy waters when selling top-of-the-range models to business executives, with many companies in the last three years dropping their insistence that management staff drive only British cars.

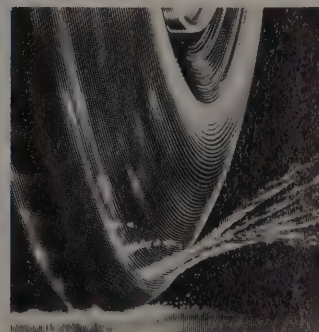
Barclays Bank, for example, whose executives account for 3000 vehicle sales every two to three years, says that, until a go-ahead was given for senior staff to choose 'European', its executive fleet was almost exclusively Leyland. Now it reports that the Renault 20 has become probably the most popular choice, while other preferences include the Fiat 132 and Peugeot 504.

But, the company goes on, the Ford Cortina 2000 Ghia would almost certainly be the biggest favourite—if only it were readily



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Pony tale

Taking another look at last year's Motorfair guide recently, I noticed a new little car called the Hyundai Pony, made in Korea. Could you please tell me when we will see it for sale in Britain, and who will

market it?—MASTER C R OWEN (11), WALSALL
We don't yet know who will market the Pony, but it's likely to be with us in about a year's time. Up to now, exports of the car have been concentrated on the Middle East and South America, but the Pony will gallop into Europe via Belgium and Holland after its January debut at the Brussels Motor Show. It's a conventionally-engineered 1300cc saloon using a lot of Mitsubishi mechanical parts, with an attractive Giugiaro-styled four-door body. At about £2600 it looks like being a challenger to the smaller Japanese saloons. Sorry, Master Owen, but for the next year or so the nearest breed is a Mitsubishi Colt.

Viking invasion

When I had a tyre blow-out on my Mini, I took the car to a local

dealer who replaced it with a Norwegian 'Viking' tyre. I'd never heard of this make, and asked the dealer about its quality and expected life. He obviously knew very little about Viking tyres, as did four other tyre people I subsequently quizzed. Do you have any information about them?—D A MAYNE, BECCLES
Viking, the only tyre manufacturer in Norway, started production 10 years ago. It is the sixth-largest company in Scandinavia, with interests in many products, including clothing and North Sea oil rigs. Its range of tyres is extensive and covers all sizes from wheelbarrow and bicycle tyres to giant earth-moving equipment tyres. It produces over a million a year (more than half of them radials), exporting 50% throughout Europe. Great Britain is one of Viking's most

important markets, and the price and quality of its tyres are comparable with the better-known European and American makes. The importers are Viking-Askim (UK) Ltd, Block 1, Trading Estate, Milton, Abingdon, Oxon.

Protection money

When I purchased a new Ford Cortina 1300L recently, I asked the dealer about having some form of underbody protection, as the Ford handbook suggests. He said that sealant was already applied at the factory, but it doesn't look like it to me. Is there, in fact, any underbody protection on this car? If not, is it an easy job to have done locally, and how much would it cost?—DR A M MIKHAIL, GALWAY, EIRE
Ford does apply underbody seal to the Cortina, but it's pretty thin (see

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DRIVE's long-term car test on page 42). It's a pvc-based material that's blown rather unevenly into the wheelarches and along the outside areas of the floorpan.

It is therefore a very sensible idea to have the car fully rust-protected, and one of the well-known petroleum-based sealants, such as Tectyl or Ziebart, would be ideal for the job. Unfortunately, there are very few treatment centres in Eire, but you can obtain further information from Rustprotection (Ireland), Unit 4, Boucher Road, Belfast (tel 0232 669591), or the Ziebart Rustproofing Company of N Ireland, 1 Hyde Park Lane, Mallusk, Newtonabbey, Co Antrim (tel Glengormley 2241). Expect to pay about £80 for the complete treatment.

Smear campaign

Is there anything known to man

that will remove the persistent smears created by the wipers on my Triumph Dolomite Sprint? They are particularly troublesome at night, making after-dark driving really hazardous. I have tried proprietary products, with little success.—S J MONKCOM, MERSEYSIDE

It's best to make a clean sweep of your windscreen-cleaning system. First, renew the wiper rubbers, and make sure that they are not over-sweeping—the blades could be picking up body polish or excess windscreen sealant. Then clean the screen with either Mixra Clean Screen or AA Screen Clean, both of which are very effective. Be sure to use a different chamois leather from the one that you use to dry-off the bodywork. After all this, keep your screen clean by adding a proprietary cleaner to the wash bottle.

There is always a chance of a flaw in the windscreen glass, but this is a rare fault in modern screens.

Blast them

Settle an argument, please. When doing my car's regular service I've always given the sparkplugs a brisk scrub with a small wire brush, then rinsed them out in paraffin. A friend says that I should always use a sand-blaster, but I've never had any trouble.—R ROBERTSON, WENDOVER

Probably all of us have been guilty at some time of giving our plugs a once-over with a wire brush. The sparkplug manufacturers' view is that brushing is likely to load the plug's inner-shell area with electrically-conductive brush particles that can encourage misfiring. Brushing can also wear away the electrodes. So if you suffer from

intermittent firing, don't dismiss plug failure just because you've given them the brush-off. Our advice is to play safe and use a proper sand-abrading plug cleaner—even if a garage does charge you. Expect to pay about 80p for a minimum of 12 minutes' work, though a friendly garageman might do the job free.

Ill considered

In your article 'One Degree Under' (DRIVE, November-December) it was stated that fewer than 1% of road accidents are the result of serious illnesses such as 'heart disease, diabetes, epilepsy, serious mental illness, brain damage . . .' Yet one insurance company attempted to impose a 50% loading on my insurance premium because I suffer from diabetes. My present company makes a 25% loading:

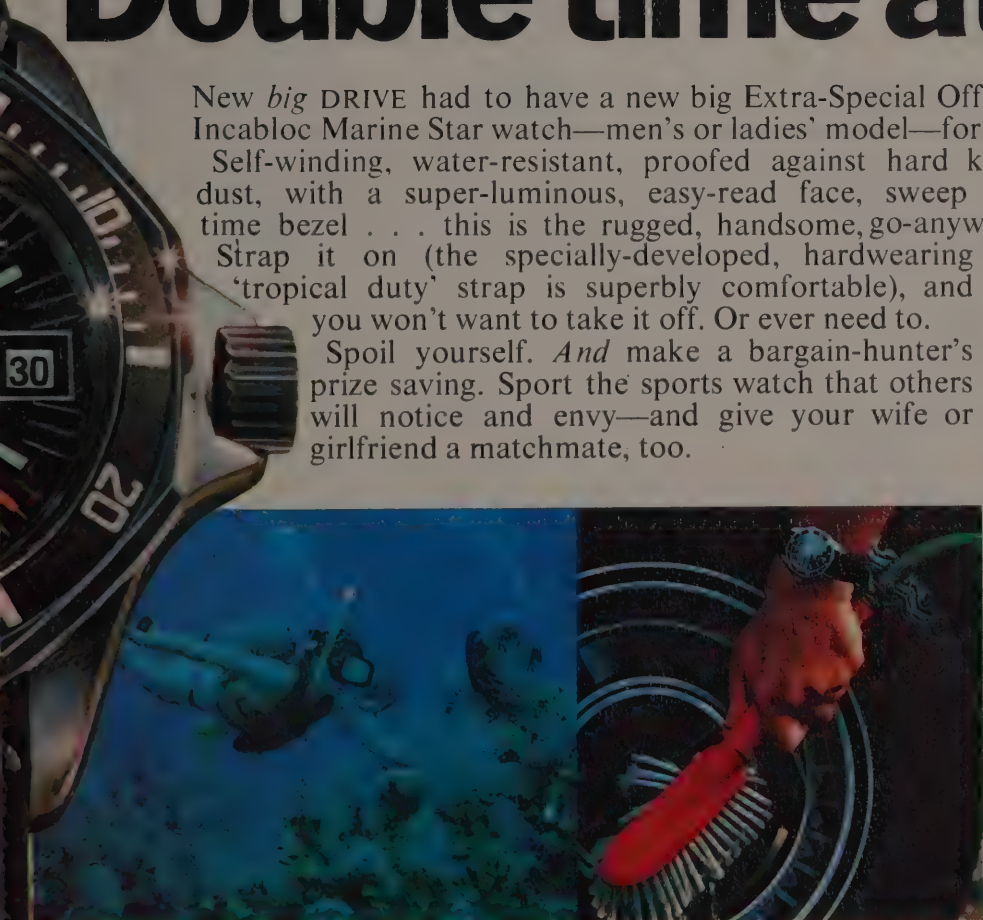
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All you have to do to take advantage of this big-DRIVE introductory Special Offer is to let us sign you up for a full year's copies of either DRIVE or the AA's big new camping, caravanning, outdoor-life magazine TRAIL, to be launched in March (see page 30).

Take out an annual subscription to have DRIVE or TRAIL posted to your home or instruct us to place a year's order with your newsagent: the choice is yours on the coupon.

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vered by your newsagent, give the shop's name and address on the coupon—and ask the newsagent to sign in the space provided to ensure delivery.

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are my mathematics too simple, or am I, and people like me, subsidising healthy drivers?—J E BUCKLAND, HAVERFORDWEST

Although only a small number of accidents involve drivers with some physical disability, when these people are taken as a separate group, insurers say that their chances of having an accident are considerably greater than those of drivers in 'normal' health. This increase in accident-proneness is translated into special policy terms either in the form of an increased premium and/or restrictions in policy cover.

Reception down under

Over the years I have had many telescopic radio aerials damaged, and when I changed to a power-operated type I was plagued by it sticking in the retracted position. However, in the 1950s I had a car fitted with a simple underbody aerial—a stiff, plastic-covered rod that formed a rectangle under the car. Reception was fine, but I've not seen or heard of such aerials since that time. Are they still available?—E W HUNTCHINSON, ORMSKIRK

Afraid not. Put it down to 'progress'. The problem is that the reception you considered fine in those distant days just wouldn't be acceptable today. Modern car radios have a far wider waveband coverage, and need an aerial in a prominent position to gain greater station selectivity. Tucking an aerial under the car would compromise both the quality and strength of signal reception.

Keeping a low profile

Several recent magazine reports I have read refer to 'low-profile' and 'low aspect-ratio' tyres on new cars. I gather these terms are something to do with tyre height, but I would be grateful if you could provide me with a bit more information.—V COOK, STOKENCHURCH

Low-profile and low aspect-ratio tyres are one and the same thing. The aspect ratio of a tyre is the ratio of the tyre's section (from bead to tread) expressed as a percentage of its width. Early tyres had a 100% aspect ratio (ie they had a square cross-section), but tyre technology in the past 10 years has proved that lower aspect ratios give significant improvements in roadholding and braking. They also add to tyre life and give marginally better fuel economy.

In general, cross-ply tyres have a 95% AR, while on radials it's 82%.

Lately, though, 70% radials have become more common (marked, for example, 165/70SR 13 on the tyre). These squatter-section tyres mean that wheel sizes have to be increased to maintain the same total diameter and thus retain the car's overall gearing. A valuable spin-off from this increased wheel size is that manufacturers can fit bigger brakes or improve the air flow around existing ones.

Low- and ultra-low-profile tyres can be seen on the new Ford Granada S, on which the Michelin TRX is fitted to a new wheel and rim combination as standard. However, we can expect to see aspect ratios drop to 65% or even 50% in the near future.

Legal loophole

Two years ago my Ford Anglia was written off by a car that, its insurance company claimed, was defective (even though it had passed its MoT test a week earlier). It refused to pay out, and, since I had only third-party cover, this left me no alternative but to pursue my claim against the other driver. I lost the value of my car, and had to pay £100 solicitor's fees, towing and garaging charges

plus the cost of hiring a car for a cut-price holiday. Not least, I had to give up a well-paid job to work nearer home. I think the 'small print' that enables insurance companies to take this line of action is iniquitous. What do you say?—J R STOKES, BAGSHOT

We sympathise—it is infuriating to have to pay for the stupidity of others. But it has to be seen that insurers won't blindly indemnify anyone who takes out a policy, regardless of how silly—even wanton—that driver's subsequent actions might be. Your man's insurer said, in effect, that he was insured against normal risks—but not for taking anything on the road, no matter how unsafe. On the other hand, in electing to drive without comprehensive insurance you were saying: 'I'm willing to take risks.' And, in your case, they didn't pay off...

There is no substitute for comprehensive motor insurance as there is no guarantee that, just because your car is damaged by someone else, you will have a successful claim against him or his insurer.

The number of unsatisfied claims is comparatively few, but it is possible that, under the influence

of EEC legislation, the laws in this country may sometime be changed to cover such situations.

Vamping a veteran

I've recently given my 1970 Wolseley a new lease of life with an expensive engine and clutch replacement. Should I tell my insurance company?—A CASTLETON, PANGBOURNE

You don't have to, unless the changes are likely to affect the car's performance. Insurers accept that certain working parts must be replaced by new ones, so your overhaul shouldn't alter the terms of the insurance contract. But it is in your interest to retain evidence such as invoices to prove that your new parts aren't as old as the car itself, in case of an accident-damage claim; otherwise you could be asked to pay for 'betterment' when new replacements are fitted during repairs. If the car ever becomes a total loss, the invoices would help to persuade your insurer that the car could be worth more than his market valuation.

Few premiums are affected by a vehicle's value, but, to be on the safe side, it might be wise to tell the insurer, in case of a total loss.



GREAT ESCAPES Dallying in Dingle

SLOW! warned the traffic sign, with an urgency that almost made me slam (slow?) on my brakes. Did it mean danger, halt—or what? Unfortunately, my windscreen-sticker of foreign road-signs did not extend to Irish Gaelic. It was my wife who, with unexpected logic, worked out that it was not in that language at all, at all. It was SLOW—with the W upside-down.

Such mutations should be expected when crossing the border between Anglicised Ireland and the genuine Irish parts, called *Gaeltachts*. Scattered mainly along the remotest west coast, these besieged outposts of Irish culture are valiantly preserved by officials determined to

turn the tidal wave of English influence. If you don't get snared by the tourist traps of Blarney, Killarney and Dublin, they offer a much richer insight into the centuries-old traditions of the Irish way of life.

To reach one of the most entrenched outposts we took a narrow road that runs west from Tralee, on the south-west coast. Leaving behind the packaged coachloads vainly searching for that rose, we climbed over the spiky crocodile's back of the Dingle peninsula up to 2000ft and the forbidding Conair Pass, half hidden in Atlantean cloud. But, as we descended to the coast, the panorama of thatched cottages with smoke curling heavenward and the sheer, unspoiled green peacefulness below was idyllic Ireland in earnest.

Here, nature (as much as man) has conserved the old customs. Decades ago it was easier to travel by sea than by road to the peninsula's tiny harbours, and today fishermen still use that frail craft, the *currach*.

I was lured into one the day after I arrived. I went reluctantly, trying to encourage myself by recalling that the 6th-century navigator St Brendan had sailed from here—allegedly to Iceland—in a similar black water-beetle.

I crossed to the Blasket Islands, which until the 1950s were the most westerly inhabited part of Europe. Then a dying economy forced the islanders to move to the mainland. Totally Irish-speaking, their arrival reinforced the Gaelic language—and liquor—on Dingle far more than the

official names and traffic signs. In 'Kruger' Cavanagh's noisy, smoke-filled pub, which clings to the hillside at Dunquin, overlooking the ocean, we heard barely a word of English all night.

Dunquinians resort to English only when conversing with the few tourists who venture this far. Most stay at Ballyferriter, in the whitewashed, 20-room hotel with its traditional cottages beside a small beach. The *Dun an Oir*, named after a local hill called the Fort of Gold, is the country's first *Gaeltacht* hotel. It's also the most westerly in Europe. As the local priest told me while we gazed over the waves: 'That's our next parish—New York.'

The clattering one-armed bandit in the hotel bar proved that the New World's influence was rather closer. Luckily this was one of the few alien intrusions; even the local radio had an all-Irish channel.

But for most of our stay the only thing we communicated with was nature. Like most visitors, we fished off miles of golden, totally deserted beaches; walked over moors and mountains up to Mt Brandon's 3127ft; and visited the rich collection of ancient ruins—stone 'beehive' huts, and the early Christian Gallarus Oratory, one of Ireland's oldest churches, unmortared stone and still weather-tight after 1000 years.

Everywhere, cars were as few as children were many. Which could explain why a common traffic sign is *Tabhair aire leanbh*: Take care to avoid children. But I'm not sure we interpreted that one correctly, either.

BILL GLENTON

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WITH **ENSON**

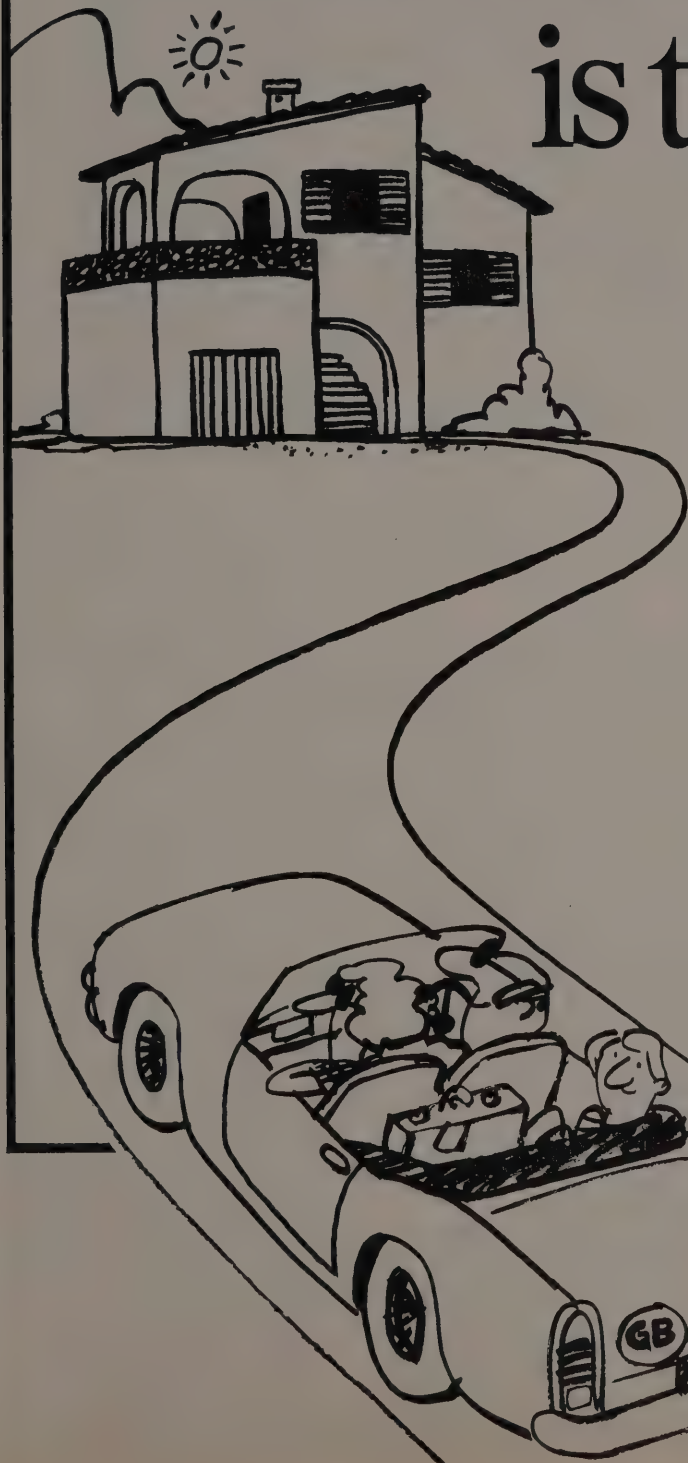
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JOHN BULL'S 1st CAR

Better to have loved?

asks COLIN REID

I REMEMBER my first car as vividly as the first time I fell in love. There were disturbing similarities. Excitement reached such a height that it was obvious no good would come of it. No good did.

She stood in the saleroom window, sleek, polished, tempting. The car, I mean, not the girl—no, the girl was a pig-tailed little miss whose smile turned my knees to water, who held my hand under our shared desk, then deserted me for a first-form prig.

Oh, fickle women! Fickle cars, too. What a dance that first piece of machinery led me.

It was back in 1955. I'd just passed my driving test. At 28, I suppose I was a bit of a late developer, motoring-wise.

Straight from the test I went to that saleroom. It had been in my mind to buy something second-hand—an old banger, maybe, to develop my skill (I'm still on cars, by the way). But then I saw that sleek, gleaming, new Ford Consul. Black with red leather upholstery.

It was love at first sight. I had to have it. So I did. And I drove it away there and then, as nervous as a teenager on his first date. It was my first solo drive.

As with girls, there are things you remember about your first car that you can never remember about its replacements. And there has to be a period of adjustment.

The first adjustment I had to make was with the gear change: a stick on the steering column, not on the floor as in my lessons.

I couldn't get it right, and kept going into reverse. It took an hour to drive the three miles home. In

my excitement, I had a bit of my old learner trouble—letting the clutch out too quickly. So when I wasn't actually crashing into reverse, I was kangarooing through the traffic.

My non-driving wife, who was sitting beside me, just closed her eyes and prayed . . . when she wasn't shouting at me to keep calm. When finally I arrived home, she had to prise my white knuckles from the wheel. But I made it. Well, almost. Trying to turn the car in our road, I pushed the gear into the wrong slot again and reversed into a tree. I could have wept. Only one hour old, and there was a large smile in the middle of the rear bumper.

'Well,' I consoled myself, 'it's blooded now.' And for a time the heady thrills of infatuation returned. I wanted to use that car at every opportunity. I'd drive 100 yards at the slightest excuse, and I'd sit in the car, beaming and admiring, then get out and walk around it several times—closing my eyes, of course, when I reached the smile in the bumper.

Shortly afterwards, with an office colleague, I had to work in Manchester for a while. Naturally, I persuaded him to travel up from London in my new car. On the way I enthused about the weekend trips we could make to the Lake District and to the coast.

But it wasn't to be. That night we checked into the Grand Hotel. The next morning I discovered that my new love, like my first love, had been stolen from under my nose. Well, from underneath the hotel window.

And it was no first-former, either, but a couple of villains who used it in a smash-and-grab raid on a television shop. They were chased by police at 90mph, and wrapped my shiny, black Ford Consul round a lamp post. The car was a total write-off.

We never saw the Lake District. We never saw the coast. And for two months I had to use taxis.

I don't fall in love with cars any more. I use them to travel from A to B, that's all.

I'm still wary about girls, too. ●



HOTELS

The wrong goodbye

SMILING politely, the blonde behind the reception desk handed me the bill: the charge for my single dinner, bed and Continental breakfast was—£112. A ludicrous mistake, of course, and the final straw in a visit to a four-star hotel that was modern and excellently equipped, but short on care and commonsense.

When the error was pointed out, the girl with the fixed smile took the receipt and, without the slightest apology, put it back into the accounting machine. With the finesse of a steam-hammer it ponderously corrected the £78 it had printed to 78p.

But that still left the bill inflated by the £20 deposit that the hotel had exacted when taking my booking. With her plastic smile now somewhat stretched, the blonde snatched the bill from me and pounded the machine again. The multi-coloured bill had a column for everything—except an apology.

As I escaped to my car, the smartly-uniformed porter hurried forward to say goodbye. I resisted crossing his palm with silver as his haste obviously was not directed at heaving my suitcases and typewriter into the boot. But I drove away with the uneasy feeling that he was bound to receive a share of the hotel's 15% service charge.

We both knew that there was nothing I could do about it, not without delaying my departure to protest to the manager. A

letter of complaint would be difficult and probably futile, for no one was actually rude, tried deliberately to cheat me or make my stay uncomfortable. It was just that the hotel's standards didn't extend to the guests' departure.

Leave-taking should be a vital part of any hotel's procedure. An offhand attitude and inefficiency at this stage can undo all the good customer-hotel relations created in the previous days.

If the manager can't spare the time from his office work to keep an eye on the 'departure lounge', then he needs either a better deputy or better accounting staff.

Fortunately, hotels that are courteous, careful and charismatic still exist, and in every issue of DRIVE I'll select two for special mention.

A single star denotes small hotels with modest facilities; two stars offer a wider range in accommodation and meals. Red stars signify outstanding hotels.

★★ **Winterbourne Hotel, Bonchurch, Ventnor, Isle of Wight** (tel Ventnor 852535)

'The prettiest place I ever saw in my life, at home or abroad,' wrote Charles Dickens, before settling there to write *David Copperfield*. Lovely bedrooms in the main building (with a good bar and restaurant), superb modern bedrooms in the converted coach house and delightful seaside gardens provide peace and tranquillity. Single b&b from £12.

★★ **Ebury Court Hotel, 26 Ebury Street, London SW1** (tel 01 730 8147)

It's unusual to find a small, family-owned-and-run hotel in London with the friendly atmosphere of a private house; the Ebury Court is an exception. This cheerful house near (but not too near) Victoria Station offers small but comfortable bedrooms, lounges and restaurant, and even old-fashioned afternoon tea. Single b&b from £11.

ROBIN WILLS

As the AA's chief hotels inspector, Robin Wills is a veteran of every kind of hospitality in Britain and abroad

LOMBOS
OR BUST

Taj for three

by Lynn ten Kate

Back home, the peripatetic ten Kate family take stock of their 23,000 miles round-trip in their Ford Travelhome from Hampshire to Sri Lanka. To pick out highlights from such a marvellous journey is nearly impossible, but my big moments were seeing the Taj Mahal and trekking to the top of

the world to see Everest and the snowclad Himalayas.

Erik loved Ceylon—not only the enchanting island, but the beautiful women and the warm-hearted welcome from everyone.

Before setting out, we had tried to anticipate all the difficulties we might meet, but it never occurred to us that the caravan might be too tall to go on the ferry to Ceylon. The maximum headroom was 8ft. We were disappointed at having to leave it behind and fly across the narrow strip of water that separates the two countries. Thanks to a friend, we toured the whole island by car.

But Ceylon was only the half-way mark. And the return drive

proved far more hazardous. We came back by a different route and learnt that some map makers are a trifle optimistic. In Baluchistan, where a metalled road was shown, no road at all existed for hundreds of miles. We were rescued by a tribal chief and given an armed guard to escort us through his territory.

After 500 miles of desert dust, a mirage turned into a road-builders' camp—a rare chance to clean-up and get a good meal.

The worst hazard was the wintry conditions on the busy northern Turkish road that carries all the heavy goods lorries to the Middle East. We were forced to take this route as we weren't

granted a transit visa by the Iraqis to cross their climatically kinder country. What a sight to see these giant lorries in the morning, with fires lit under the tanks to melt the frozen diesel. We counted 57 wrecked lorries between Tehran and Istanbul and witnessed some horrifying accidents on the icy roads. We were involved in one and counted ourselves very lucky to get through with only the wing and the side of the van torn.

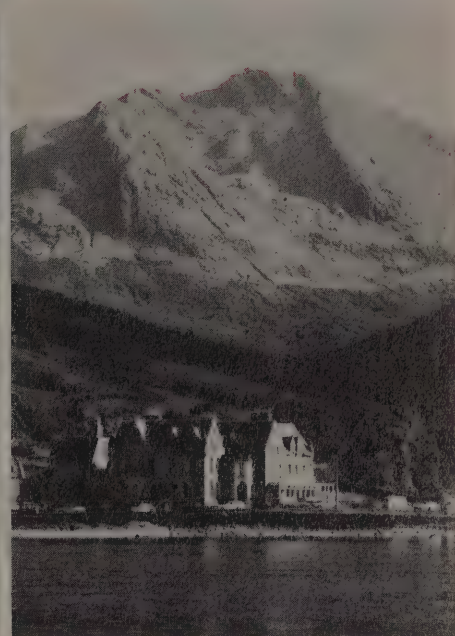
So what advice can we give to others who might want to do the same overland journey? Watch the time of year when you will be travelling, but GO! if you have the opportunity. ●



Holiday Ideas all over Britain



Livermead House Hotel, Torquay, South Devon



Ballachulish Hotel, Ballachulish, Scotland.

Interchange Hotels, Britain's leading group of individually owned and run hotels, have a wealth of holiday ideas for you this year with free literature to help you choose the one which suits you best.

There's "Family Bonus Holidays" where your children stay in your room free and eat at half prices. Included in this brochure are details of hotels offering beneficial Inclusive Terms at superb resort hotels all round the coast and in inland beauty spots too.

There's the "Getaway Anyday" scheme which offers bargain weekends and special interest and sporting holidays *all year round*.

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It was love at first sight—but will he be able to live with it? There's more to buying a new car than reading the test reports and keeping up the showroom shine. Here, in part 1 of a new series, the first of six DRIVE readers submits his own, brand-new Ford Cortina 1600GL to a year-long scrutiny

DAVID JONES is no fan of the garage trade. Normally he goes to garages only to pick up new cars and buy petrol or spares. Routine servicing and repairs he does himself; or, if it's a really big job, he calls in help—from his father.

But David *is* a Ford fan: apart from a couple of Triumph Heralds in the 1960s, he has owned nothing else: 'I've had Fords since 1969, and I'd never consider changing.'

Jones, 27, manager of a fuel-supply company at London's Heathrow Airport, could therefore be expected to be reluctant to hand over his new Ford Cortina 1600GL to anyone. But, just to please DRIVE, he will be taking it back to his dealer for its first service at 1500 miles. And, at every stage of the first year of its motoring life, he'll be handing it to AA engineers to swarm over, take apart and criticise. For Jones has agreed to be the first new-car owner to take part in

DRIVE's exhaustive long-term tests.

With each issue, DRIVE will select one new car to follow throughout the first year of its life, covering each crisis and minor problem, with regular checks by AA experts, building up to a total of six long-term tests on different cars at different stages by 1979.

The cars chosen will not be company-owned vehicles that might expect to suffer an abnormally harsh life, with the usual fleet-car neglect; DRIVE's reader 'guinea-pigs' will be paying their own way, driving their own cars, and voicing their own heart-felt complaints and praises.

David Jones owned a 1976 Ford Capri 1600XL until the end of last year; then, with his wife Julie expecting a baby in May, he decided that something larger was needed. On 22 November, Friary Motors, of Straight Road, Old Windsor, Berks, gave him £2100 in part-exchange for his Capri and charged £3746.48 for a new Cortina 1600GL automatic, including £15 for wheeltrims, £21.50 for metallic paint, and £8.32 for the petrol in the tank.

Julie Jones plans to leave work to look after the baby, so the Joneses hope that the Cortina will last them for four years. They had eyes for a 2litre version, but, knowing that they might have to wait for delivery, and with price-rises coming as regularly as clockwork, they decided to order a cheaper model.

Says David: 'While we were waiting for the car, the factory kept sending us progress reports [a Ford speciality—it sends each customer stage-by-stage news on his particular car's progress along the production line]. It really kept our spirits up.'

'As it turned out, we could have afforded the 2litre version, but that was the gamble we took: prices didn't rise in October, as we expected. You have to draw the line somewhere, though. My dream car is a Ford Granada Ghia—if I had a small pools win.'

With only 180 miles on the clock, David arrived at the AA's technical centre at Basingstoke, Hampshire, to hand over his pride and joy for appraisal—and criticism. But loyalty is a strong emotion, and, even when the AA engineers who checked the brand-new car gave Jones a list of gloomy tidings, his faith in Ford remained unshaken.

The tender hands into which he delivered



EATING OUT Some like it hot

HOT PLATE CHARLIE was not the most popular of diners. His habit of rushing out of his usual, luxurious restaurant as soon as he had paid the bill—precisely—depressed the waiters as much as his insistence on plates hot enough to scorch the tablecloth.

Many a fine bone-china plate was shattered under the kitchen's fierce gas-fired salamander in the attempt to satisfy Charlie; many a waiter suffered a blistered finger—painful souvenir of a moment's inattention. But, when it came to tipping, Hot Plate Charlie never left a penny.

Yet Charlie was a valuable customer. His restaurant and bar

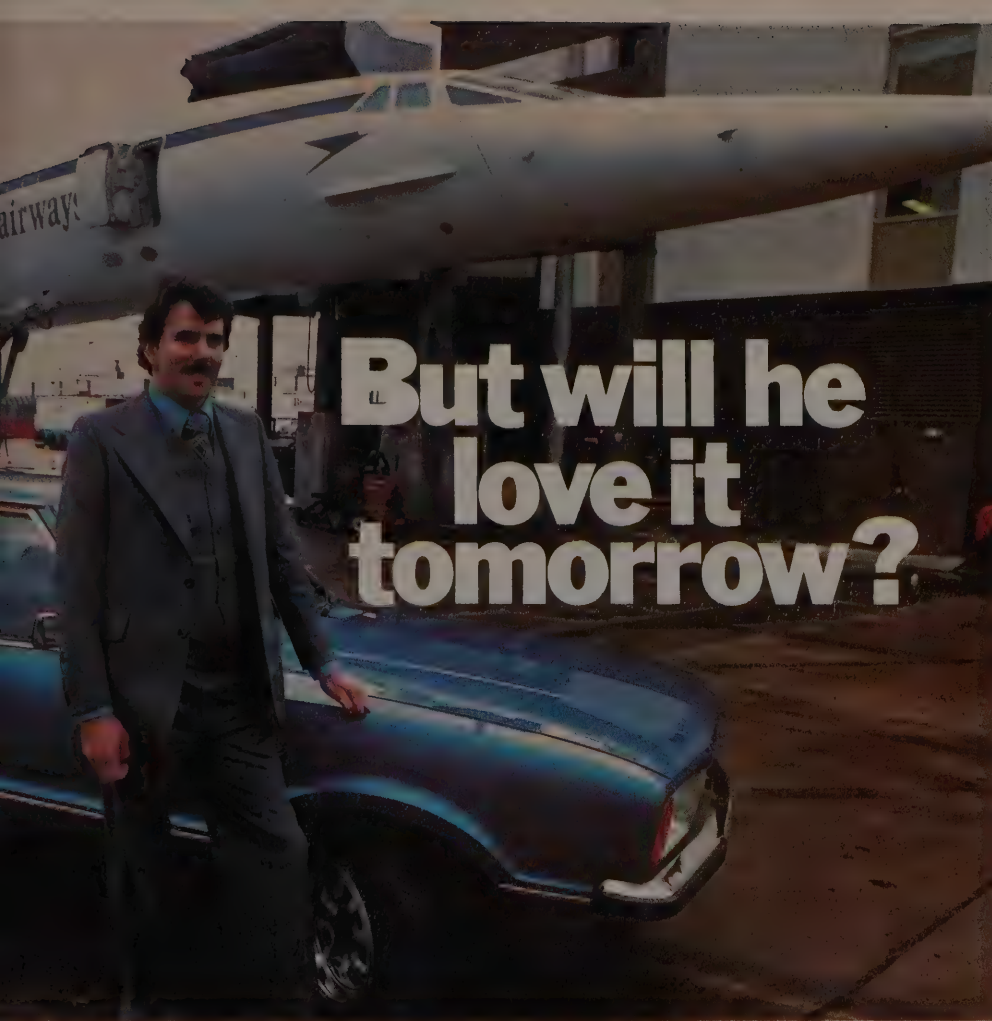
bills amounted to more than £150 a week. So this rich, spoilt old man, whose emaciated figure belied his gargantuan appetite, received the best attention—at all costs. When he'd tested a plate (by checking that a pat of butter sputtered and danced around it before turning brown), three or four waiters would rush.

In the end, of course, the waiters got the better of him. The opportunity arose when Charlie developed another quirk—tomato ketchup on almost every dish he ate. He spread it liberally, straight from the bottle, on steaks, chicken, broccoli—even asparagus.

The sight of Hot Plate Charlie

vigorously shaking the bottle proved too tempting for one young waiter: he removed the cap before handing Charlie the bottle. A few moments later, he shook the bottle in that restaurant for the last time: the ceiling with its crystal chandelier, the carpet, and the dinner party at the table behind him—all were dripping ketchup. Fortunately the whole restaurant—except the party in evening dress—were soon in paroxysms of laughter.

That restaurant never saw Charlie again. But, apparently shamed by the disaster, he left on the table a crumpled bank-note that brought a tear to the eye of



But will he love it tomorrow?

kind of problem. The best you can hope to do is stop what rust there is from spreading. 'Water is almost certain to get behind the trim strips of the Cortina. Of course, it is nice to have strips—but not if they're this badly fitted. The insides of the doors are rust-free, but there are slight patches on the bonnet strengtheners.'

David Jones' comment: 'I'm a habitual car cleaner—once a week minimum, sometimes twice if the weather is bad. Since this is my own car and not a firm's car, I intend to look after it. I plan to keep it for maybe four years, so I may even go in for a rustproofing process.'

Saunders lifted the boot to discover that water on the floor was already producing rust on the spare wheel. 'It might be condensation from the exhaust, but I doubt it. The car may have been left standing in the rain with the boot open.'

David added: 'I had a leak problem in my 1973 Capri—I can't say I'm happy.'

But then came the bad news: 'Both wings,' said Saunders, 'are equally poorly protected from rust—and protective coating is falling off the nearside wing. That's because the wing has been resprayed at the factory after a knock. It looks as though the bumper went back into it. Paint from the respray has caught the top of the trim, and the trim itself now points downwards. The paint match is very good, considering it is metallic—too good for the average garage job.'

Jones was philosophical: 'It might even be better than new—it was probably nothing more than a scratch, and the whole wing has an extra coat of paint, now. If it hadn't been pointed out to me, I'd never have been any wiser.'

Seconds later, Warwick made the discovery that undoubtedly saved David from his first potentially serious breakdown: the flexible pipe to the fuel tank had not been pushed fully home and, as Warwick touched it to point out the fault, it came clean away. The engineer stood under the ramp like the little boy with his finger in the dyke, fuel pouring down his arm. 'The garage *should* have spotted that in the pre-delivery inspection,' said Warwick mildly. 'In my opinion, this is the most serious fault on the car.'

Jones, however, was again charitable: 'It is worrying. Obviously, that would

Stuart McPherson

Above: ready for take-off—airport worker Jones has just taken delivery of his new vehicle (the blue one). However, not only Concorde has a droop in its snoot... Left: get out and get under—Chris Warwick shows David that not all that glisters has been undersealed

the car belong to AA engineers Chris Warwick and Fred Saunders. And they set to work with a will...

'You cannot work out a realistic mpg figure by putting your trust in the car's instruments' was their first lesson for David. They found that, for every five miles recorded on the clock, the car had actually covered 4.85 miles—a significant error if used as a basis for calculating fuel consumption. Perhaps more annoying, though, was that at an indicated 70mph the car was actually travelling at 64mph,

so an honest driver would lose 6mph on the motorway. Would this bother David?

'My Capris tended to be sporty cars, and I usually drive as fast as the limits allow,' he admitted.

Then the 'inquisition' looked underneath the Cortina...

Said Saunders: 'Ford tried to rustproof this one, but it is rusting already. There is no protection at all underneath the radio aerial, for instance. There is little protection around the headlamps or under the wings or behind the wheelarch lips. In fact, there is nothing on the last except paint. Ford ought to be able to do the whole job better. All it would need is a ha'porth of tar.'

'Mind you, too many new cars have this

Guido, the gnome-like doyen of the waiters.

This all happened long before restaurants included a service charge in the bill. Waiters received less than a living wage, so they depended on tips to survive.

Nowadays the service charge can vary from 10 to 17½% of the bill. Whether you tip on top of this depends on the excellence of the service you receive. But, if the service is very bad, you could refuse to pay even that percentage—provided that you can prove you weren't forewarned of the intended charge.

Tipping before a meal is generally regarded as a bribe—

embarrassing to both staff and management. Customers who do so are suspected of looking for preferential service.

Tipping should at all times be discreet. In the days of the impressive, white £5 note, I once saw a customer grandly hand one to the manager of a top London restaurant in full view of all the other customers. The manager took the note between finger and thumb by one corner, as if it were a dirty napkin, beckoned a junior waiter, and dropped it on to a plate.

Charlie would have wept.

There's not a bottle of mass-produced ketchup to be seen in either of the restaurants I have

picked for special mention. Two rosettes denote well above-average food, and a high standard of service. Two knife-and-fork symbols signify a reasonable standard of comfort; three, a well-appointed restaurant.

The White Tower

1 Percy Street, London W1
(tel 01-636 8141) ●●×××

An AA inspector visiting Athens asked a Greek gastronome his choice of the best Greek restaurant to dine at. 'The White Tower in London' was the immediate reply. Since the 1930s, Mr Stais has run this fine establishment in the best traditions of Soho, and superbly prepared dishes from

Greece, Cyprus and the Balkans provide for an interesting and memorable occasion. Dinner for two from £13; wine from £3.50.

La Sorbonne

120a High Street, Oxford
(tel Oxford 41320) ●●××

The French atmosphere of this delightful, wood-beamed restaurant extends beyond its doors into the narrow alleyway off Oxford's High Street, where the visitor catches the scent of herbs and spices and perhaps a whiff of garlic from the *soupe de poisson* or Monsieur Chavagnon's famous *Rable de lievre*. Dinner for two from £10; wine from £3.

ROBIN WILLS

For everyone who thinks the AA is just a Breakdown Service.

TECHNICAL SERVICES

As well as the free 24-hour Breakdown Service, the AA offers you many other benefits, some of which are totally free to you as a member.

And perhaps, you have yet to take advantage of many of these services.

So consider now our Technical Service.

Being an AA member, you can call on the AA to help you with a variety of technical matters at no extra cost.

For example, should you be involved in a dispute with a manufacturer or garage, the AA staff at your local Service Centre will offer help and advice and inform you of the appropriate steps to settle the dispute.

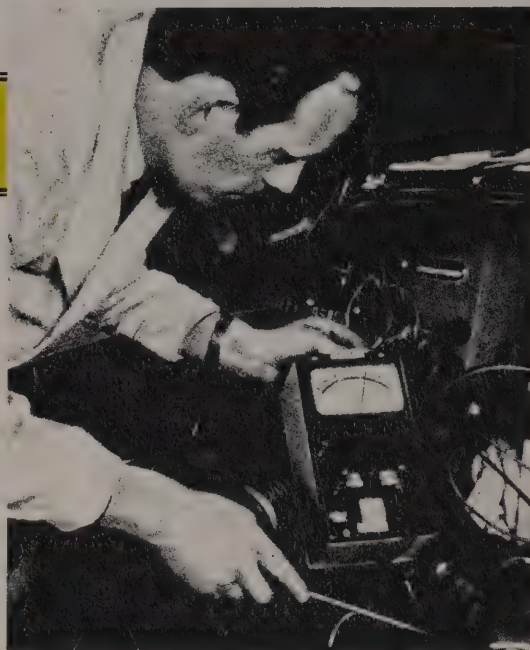
And, if you're considering buying a new British or foreign car, the AA also offers free Road Test Reports to help you make the right decision. These tests are carried out by AA staff engineers and the results are available to you at all AA Service Centres.

The AA also offers a Vehicle Inspection Service. On request, experienced AA engineers will inspect a vehicle prior to purchase, or after major repairs, thereby helping to ensure that your money is wisely spent. The cost of an inspection is related to the size and type of vehicle.

Many other services.

Apart from Technical Services, there are also many other free AA benefits. These include legal advice, travel advice and information and U.K. holiday routes.

What's more, as an AA Member, you can also subscribe to the Relay Service. It's a valuable extension to the Breakdown Service offering even more motoring security.



In the event of a breakdown beyond prompt local repair, AA Relay would transport you, your car and up to four passengers to your home or to any U.K. mainland destination.

AA Full Membership also entitles your wife or husband to become an Associate Member. For just £2.50 per year extra, they will be able to take advantage of most AA benefits and if you have already subscribed to AA Relay, your wife or husband will be automatically covered at no further charge.

So why not share all these benefits with a friend? Simply send his or her address to: The AA, Membership Sales Development, Dept. A, Freepost, BZ 47, Basingstoke, Hants., RG21 2EA. (No stamp is needed).



AUTOMOBILE ASSOCIATION

IT'S GREAT TO FEEL YOU BELONG.

LONG-TERM TEST

have caused a breakdown. But it doesn't really surprise me: I think it's just one of those things . . .

A tyre-pressure gauge showed Warwick more. He quipped: 'I think the garage just kept pumping until the tyres seemed round. They should be 26psi all round: the lowest one is 29psi, and the front offside is 32psi.'

'Apart from that, the car seems to have been well prepared—though about half the trim strips are loose. You could catch your sleeve and pull it off.'

Warwick had his own theory about the water in the boot. He noted that the boot lock was loose and that the lid was misaligned, being high on one corner, and low and fouling the gutter area on the other side.

A check of underbonnet fluid levels revealed that all was well, and that the rest of the hoses, cables and pipes were secure and correctly routed. The engine tune gave no cause for worry. 'It feels less powerful than my Capri,' said Jones, 'but I suppose that's because of the automatic gearbox.'

A road test showed that the steering wheel had been fitted not quite straight and that the front nearside window was a source of wind howl. Warwick noted the gap between the glass and the frame and felt that a new window might be the only answer.

It was this last fault that was causing Jones most annoyance when DRIVE returned to him for an interim report a few weeks later: 'The garage say that it isn't wrong-sized glass, but that it has come slightly out of the bottom channel. We will have to see what's done about it.'

'I have also been surprised to find that an automatic car can stall—even one with an automatic choke. It has died on me a couple of times when it was cold.'

'At the moment I am getting just under 20mpg, but then I rarely drive more than five miles without stopping, so the car doesn't really warm up. On a run I am getting 24mpg. My Capri used to give me 25mpg, but I never really checked it as carefully as I am checking this one . . .'

Next issue: David Jones' Cortina begins to clock up the miles—and reader Tony Colin wheels in his Alfasud for Check 1.



Important news for motorists!

Why risk your licence?

Check your breath instantly with **ALCOCHECK**

**NEW FROM
SWEDEN!**



No motorist wants to risk causing an accident or losing his driving licence, and any alcohol increases the likelihood of road accidents. Now for the first time in Britain you can buy ALCOCHECK, the breathe-in repeat-use electronic instrument that checks your alcohol level automatically. Used properly, it helps you decide whether you ought to drive or not. This important safety aid for motorists is pocket-sized, completely self-contained and comes in a smart presentation box.

Alcocheck is not a toy or novelty. It is a precision scientific instrument developed in safety-conscious Sweden and now brought to Britain with the backing of the St. Christopher Motorists' Security Association. Each Alcocheck is tested and individually calibrated during manufacture. Only the batteries should ever need replacement, and the instrument is fully guaranteed for 12 months.

HOW TO ORDER: ALCOCHECK costs £34.50 incl. p+p & VAT, but exclusive of batteries (needs 8 pen-cells).

Fill in the coupon, enclosing cheque or quoting your Barclaycard/Access numbers. Post immediately, and allow up to 21 days for delivery; however, we shall make every endeavour to supply by return post.

WARNINGS. Any alcohol increases the likelihood of road accidents irrespective of legal limits. The device provides no more than an approximate indication of the blood/alcohol level. A person's blood/alcohol level may continue to rise for some time after the last drink is taken, and repeat testing may be advisable.

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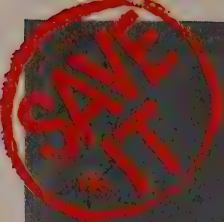
My number is

Signature

Name:

Address:





MMPg

...and the saving graces

KEVAN, 50, A TEXTILE works manager from Coventry, is one of 18 average motorists of various ages whose cars, driving habits and miles-per-gallon records came under close scrutiny in a nationwide experiment set up by DRIVE at the request of the Department of Energy.

The object To show motorists how to Save It! for Britain and for themselves, contributing towards the country's continued energy prosperity simply by driving well-tuned cars and taking a few simple hints on economy.

The methods Kevan and his 17 fellow 'guinea-pigs' were asked, without being told why, to keep a log of all the car journeys they did and all the fuel they bought for a month. Then, at teach-ins held in Basingstoke, Hampshire, West Bromwich and Glasgow, they were let into the secret and 'indoctrinated' into the ways of better petrol-pinching driving by DRIVE technical editor David Rowlands and the Energy Department's head of conservation technology, Charles Ryder. Meanwhile, AA engineers pored over their cars, checking, adjusting and roadtesting for fuel-wasting faults. Then all 18 were sent out on to the road once more for another month's meticulous petrol book-keeping.

The results For Kevan, a 27% cut in fuel bills alone, squeezing 40 $\frac{1}{4}$ mpg from his Chrysler Avenger 1300 over morning and evening commuter runs and weekend jaunts—an average increase of nearly 9mpg on his previous fuel-squandering month, much to his delight.

Which, over a year, would work out to more than £50—the price of Kevan's road-fund licence.

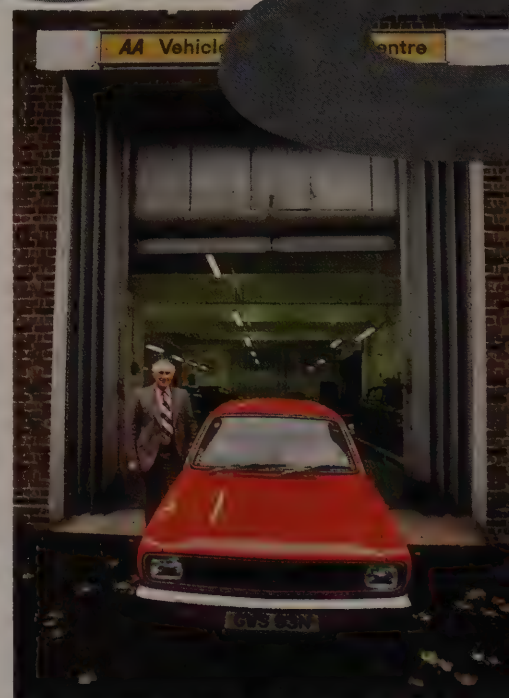
Master-miser Kevan was not alone in chalking up a petrol saving above the

20% mark. Retired office manager Bill Crooks, of Perry Bar, Birmingham, has a Mini 1000 that gets him out and about for his part-time job as clarinet player in a dance band. He clocked up 36 $\frac{1}{2}$ mpg in the run-up to DRIVE's economy month—a figure that rose 20 $\frac{1}{2}$ % to 44mpg with a light accelerator foot plus AA expertise that had sorted several of the Mini's tuning problems. 'It did my wallet good,' says Bill, 'and I'm positive that the extra attention I was paying to my driving also saved me from a bad accident when I had a minor shunt.' He also saved by using the correct 2-star petrol for his Mini, as against the 3-star he'd been buying.

In Glasgow, steelworker Robert Fairgrieve, 34, *almost* broke the 20% barrier. Weekly commuting trips by Avenger 1300 to Aberdeen—'fast trips', according to Robert—took a toll of 28 $\frac{1}{2}$ mpg. A little applied economy-driving brought that up to 33 $\frac{3}{4}$ mpg—an 18 $\frac{1}{2}$ % improvement—in the second month. He now reckons he can save about £38 a year on that performance—and he gets there just as quickly.

It was in Scotland, too, that Moira and Ian Cockburn shared a 15% saving on their two-year-old Mini's thirst. Commuting into Edinburgh and taking weekend shooting and fishing trips with their two sons, they clocked 33 $\frac{1}{2}$ mpg on 4-star petrol in the first month—and 38 $\frac{1}{2}$ mpg on 2-star after DRIVE's tune-up and economy lesson.

Overall, the test 18 achieved an average improvement in fuel consumption of 8 $\frac{3}{4}$ %—a result that could put more than £19 back into each driver's pocket in the course of a year's motoring. More important is that a nationwide saving of 8 $\frac{3}{4}$ % would conserve a staggering 210



Master-miser Clewlow takes his Chrysler Avenger to the West Bromwich centre for its AA economy overhaul

million gallons of petrol every year. **The cars and the drivers** DRIVE's Save It! exercise began with the participants' cars, a group predominated by the main British makes—Leyland's Mini and Maxi, Ford's Cortina, Chrysler's Avenger and Vauxhall's Chevette—with a sprinkling of imports such as the VW Golf, Datsun 120Y and Renault 15TS. All fell within a two to three-year age range and, being representative of the cars on Britain's roads, were expected to have a crop of tuning problems.

Armed with a battery of diagnostic equipment and a library of tuning data, AA engineers at the three centres checked the cars thoroughly, replacing parts such as contact breakers, air cleaners and plugs, and setting ignition timings to manufacturers' specifications.

Several of the test cars showed up major

How would you like to save the cost of your road tax? For ever. That's the offer that Kevan Clewlow has just received from DRIVE and the government. And all he has to do is—drive better. Not slower. Not less. Just better

fuel faults. A Maxi at the AA's West Bromwich centre had John Durham, the centre's boss, gasping: he didn't believe that a Maxi could run with such over-advanced ignition timing! Its owner, Ernie Taylor, credits the tune-up with most of his 9% cut in petrol bills. 'Another month,' says Ernie, 'and I've done even better, having unlearned a few old driving habits.'

It was at West Bromwich, too, that Bill Crooks' Mini was found to have a faulty advance mechanism on the distributor, a carburettor-needle fault (not corrected in time to affect the results) and spark-plug gaps that were far too wide.

In Basingstoke, air hostess Ruth Swain's Mini had, among other minor problems, ignition timing that was retarded by 15 degrees. But Ruth, who makes several trips from her Hampshire home to Heathrow Airport every week, likes to think that it was her improved driving that raised her monthly tally from a

creditable 42½mpg to 45½mpg (an 8% gain) during the Save It! weeks.

'You're never too old to learn,' says Lillian Chadwin, 75, a district and parish councillor and volunteer welfare worker from Lapley, Staffordshire. Her 2½-year-old Ford Cortina 1600 proved almost faultless under the AA engineers' scrutiny, so she's in no doubt that it is her driving that gave a 12½% boost to her mpg—up from 30 to 33½. 'Where I live, the lanes are so narrow that careful driving is always required. But it's undoubtedly smoother driving that has saved me petrol—and will continue to do so.' Another thing Lillian learned was that a Cortina needs 4-star petrol—not 5-star.

The Datsun 120Y estate belonging to Sutton Coldfield social worker John Hendry, 41, had only minor faults. He bought it just over two years ago and used it for commuting, and to carry leisure gear to and from the cabin



Michael Freeman

Above: AA penny-pinchers at work on volunteers' cars; below: David Rowlands re-educates the Glasgow squad cruiser that he and his wife Margaret own. In his warm-up month, John managed 40mpg over the daily 38-mile round trip to his office and back, plus the weekend journeys. 'Better anticipation of traffic and pushing back the choke sooner gave me my 6½% gain to 42½mpg,' says John.

Glasgow housewife Nan Martin freely admits that her almost-fault-free, three-year-old Renault 15TS is barely used: 'Short shopping trips and visits to the local golf course have clocked up only 17,000 miles, and I know that's bad for fuel economy.' Even so, her vehicle's 28½mpg was boosted to 32½mpg (a 14% gain) when Nan learned *not* to use the engine's zip away from traffic lights, Grand Prix-style.

But it wasn't *all* plain sailing—there were a few failures, too. Alan and Joan



Mussellwhite often find themselves driving from their Basingstoke home to John's floating art gallery moored on a Midlands canal. Their Vauxhall Chevette ran more smoothly after AA engineers had replaced a choked air cleaner and badly fouled plugs, yet fuel consumption deteriorated from a creditable 39½mpg to 36½mpg—perhaps a reflection of second-month reduction in their long-distance runs.

Systems engineer Don McGilvray, from Motherwell, Lanarkshire, had the same problem. During the first month he did several long, economical runs, but in the second period the bulk of his motoring was short trips to his office, resulting in a drop from 25¾ to 23½mpg on his well-maintained Ford Cortina 1600.

Grocery executive Les Keating, of Fleet, Hampshire, puts up a very high business mileage in his company Cortina, so he is baffled by the small fall in mpg—27½ to 27—that he suffered despite having his seriously under-inflated tyres blown up. 'I obey all the rules,' says Les, 'but perhaps, being pressed for time, I couldn't adopt the relaxed driving style that economy demands.'

The exercise held few surprises for school-teacher Keith Chambers: he has always plotted the fuel consumption of the two Austin Maxis he has owned in the last seven years. 'I expected a gain of about 7½% from the economy-driving hints I was able to use on the short journeys I make to school and for family shopping, and it was certainly interesting to look back over my records and see the gains I could have made on longer journeys,' says Keith. He made his 7½%, upping his mpg from 27¾ to 30.

Perhaps the least-surprised people of all were . . . the AA engineers who checked over the cars. There were a few cars in

almost perfect condition, such as the VW Golf belonging to Hampshire farmer and landowner John Oliver-Bellasis—who suffered a small loss in mpg—Nan Martin's Renault and Lillian Chadwin's Cortina. But these were the exceptions to the rule. All the other cars showed up with faults that militated against fuel economy.

In Glasgow, Jack and Chris Barker's Maxi—a 6¼% improver—had retarded ignition, an empty carburettor dashpot (it should be filled with oil), misalignment of the front wheels that was causing extra drag and uneven tyre wear, and a slipping clutch. 'And that's not an unusual list,' comments Alistair Allan, AA inspection engineer in Glasgow. 'Few cars of average age will be free from petrol-wasting problems.'

It's a view borne out by the results of a recent survey by sparkplug makers Champion. In a London survey, with a mobile diagnostic laboratory, Champion engineers examined cars and found 55% with poor ignition-timing, 58% needing carburettor adjustment, new contact-breakers needed on 11% and distributor problems on a further 25%.

What DRIVE's fuel misers revealed is that a *substantial gain* in mpg, over and above that made by sound tuning sense, can be made by adopting a new attitude to driving. A light accelerator foot, greater awareness of the road ahead and a little care in the preparation of the car for a journey, not least in starting the engine, can give pound-saving results that anyone could be proud of.

And that, certainly, was the reaction of all the DRIVE 'guinea-pigs' who saw their mpg figure increase during the Save It! month of tests.

But it's not just a matter of pride: it's a matter of pounds, too. *Your pounds.*

ROUTINE CHECKS THAT MAKE A SAVING

AA engineers carried out exactly the same procedures as any efficient garage or competent DIY man would use to tune the economisers' cars, checking, adjusting and replacing parts in four main areas that have the greatest effect on fuel economy:

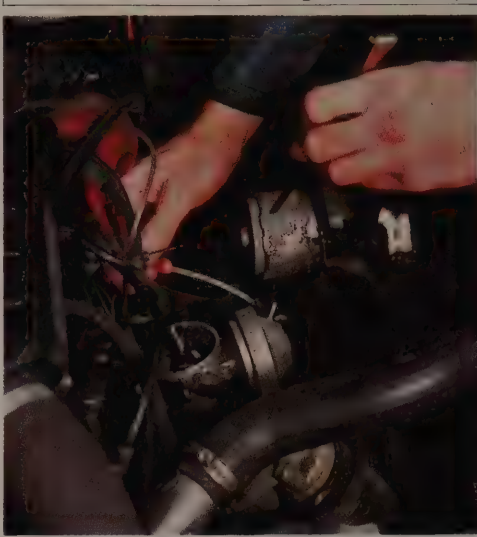
Ignition system All the cars were given a new set of sparkplugs and new contact breakers. Adjustment consisted of setting the contact breaker gap, checking the new plug gaps, and setting ignition timing to the manufacturer's specification.

Carburettor New air cleaners were fitted to all cars, and the carburettor mixture setting was correctly adjusted; chokes were checked.

Tyres Accurate pressure gauges were used to ensure that all tyres were inflated to each car manufacturer's recommended pressures—low pressures waste fuel and wear tyres.

Brakes Seized brake cylinders, poor adjustment or sticking of the handbrake mechanism can create extra drag; a car working to overcome this squanders fuel.

Oil Level checked (correct grade essential).



ECONOMY: THE REWARD IS IN YOUR OWN HANDS . . .

Economy-driving begins with the checks that YOU can make on your car, and a whole new attitude to driving that can add interest to your motoring while putting pounds in your pocket.

This was advice given to DRIVE's fuel-savers in Hampshire, West Bromwich and Glasgow: **Preparing** Weight takes its toll of fuel. So throw out all the unnecessary bits and pieces you keep in the car—it's amazing how they add up: wellingtons, blankets, excess tools, a shovel left over from winter, and plain rubbish. Also, give the underside of the car a hose down, especially during and after winter, to get rid of glued-on mud under wheelarches etc: this can pay large anti-corrosion dividends, too.

Parking When the engine's hot—that's the best time to manoeuvre the car into the best position for a straight drive off at the next start, perhaps in the cold, cold morning. *Back* into the garage or drive for a clear run out, and the same goes for the works car park: time saved in running the car with the choke makes huge fuel savings.

Starting The faster you're on the move from start-up, the better. Don't spend time talking to neighbours or postmen with the

engine running, and switch off again if you have to close the garage doors behind you. *Remember:* driving on choke is a dreadful waste of fuel—try to feed it in as soon as possible. (Properly adjusted, most cars should be able to dispense with the choke within a mile.) Automatic chokes unfortunately are unavoidably wasteful; you can only ensure they are correctly adjusted. Moving up through the gears and staying in top as much as possible is the other key economy factor. Spend as little time as possible in the lower gears and *don't stab at the accelerator.*

Driving Use the accelerator gently at all times. You don't have to go any slower to achieve economies—although it does help; just spend a little more time building up to cruising speed. Watch the traffic ahead: don't put yourself in a position where you need violent acceleration. *And use the right grade of petrol for your car.*

Stopping Every mph that you have to lose by applying the brakes has been gained at the expense of precious fuel: thinking ahead and anticipating when and where the car will have to be slowed will allow you to adjust speed without using the brakes unnecessarily. And if a halt at lights, road-works or a traffic jam looks like lasting,

always switch off the engine to save petrol. **Climbing Hills** make special demands on economy-minded motorists: best advice is to try to climb at a steady speed in top gear, dropping to a lower gear and lower, steady speed when the engine begins to labour. Don't charge at a slope hoping that momentum will carry the car up.



ECE15

Foreign bodies in the fuel tank

FUEL-CONSUMPTION figures are like household budgets. You don't know how other people manage on their money/petrol—or, alternatively, you can't understand how they get rid of the stuff at the rate they do.

But there is an important difference: where people won't always tell you the whole truth about their incomes, they simply *can't*—invariably—tell it about the miles that their cars will travel on a gallon of petrol.

Conscientious DRIVE readers may be the exceptions to prove

that of noting that no one round this part of the world would be unable to account for one in every eight *pounds* that they spent. Anyone who ever followed or took part in a Total Economy Run (now defunct) will know that there can be quite ludicrous variations in the fuel consumed by identical cars driven in identical circumstances, and the 'best' results obtained in an economy event would often differ by as much as 50% from the 'worst' produced by ordinary drivers in day-to-day use.

Only broad, comparative mpg figures are of any practical value to most motorists when they come to make a choice of which car they will buy. Most will happily forgive 10% inaccuracies. A car chosen for other reasons, therefore, would not be rejected if it did 27mpg as against the prospective owner's ideal of 30, neither would his decision be markedly reinforced if its consumption was 33mpg. But—and this is important—if he were choosing, with some difficulty, between two makes, then the claimed consumption figures would matter.

In this context, the legislation due to come into force on 1 April is of significance: from that date, under an Order made in Parliament in October last year by the Secretary of State for Energy, it will be illegal to display a new car for sale without it bearing a label declaring its 'official' fuel consumption figures. The figures must also appear in the car's handbook, in promotional material and in all advertising referring to petrol consumption, and motor traders will be obliged to carry a list of the consumption statistics for all 600 makes and models in Britain.

The new law is a natural result of three trends: to increase and to improve public awareness of energy problems; to strengthen consumer protection; and to bring Britain into line with countries such as the US, Sweden and France, where similar legislation is already in force or (as in the EEC as a whole) proposed. No one doubts the wisdom and the practicability of the first of these aims, but the other two are raising questions in many minds. Is it sensible legislation? And will it actually *help* the car owner or buyer...?

There is broad agreement between government and bodies representing motor manufacturers and distributors about the mechanics of the new test (which is being conducted for each car mainly at recognised centres such as that in Warwickshire run by the Motor Industry Research Association). But the *details* of the mandatory procedure—based in part on recommendations known as ECE15—are seen by

many observers as being conflicting and unsatisfactory.

The test covers urban driving (simulated on a dynamometer—rolling-road machine) and a constant-speed consumption at 56mph. Quite apart from the criticism that these tests will take no account whatever of the light- or heavy-footedness of *real* drivers in *real* conditions, the consensus of experts is that they will inevitably suffer from serious deficiencies.

The first is that a prolonged constant-speed test is no substitute for a 'highway' driving cycle of the sort on which American mpg quotations are based. Authorities in the US use a mix of 55% city driving and 45% open-road.

As Peter Denayer, the AA's chief road tester, notes, the rolling-road test has a certain attractiveness and could—in theory—eliminate the confusion that exists in the array of mpg figures with which motorists are now confronted, particularly those quoted only at constant speeds. It is cheap to conduct, presents few administrative difficulties, and has the virtue of repeatability. But any test that fails to take account of cold-start and aerodynamic characteristics cannot materially help to develop less-wasteful cars and drivers. As for the 56mph test, 'Cars can be *designed* to give "adequate" results at a constant speed,' says Denayer. 'They'd show up well in the ECE15 test. But that wouldn't mean that they were necessarily efficient vehicles.'

Denayer, working with Doug Houston, head of the Association's engineering research department, notes that the AA has, over the past decade, evolved a test procedure which as nearly as possible produces meaningful consumption figures. Three years ago a new system was introduced, in readiness for anticipated legislation, which took the form of four distinct roadtests—the ones now featured in DRIVE car tests.

The first is a six-mile suburban-driving cycle, divided into a three-mile cold start followed by a repeat run with 15sec halts, acceleration and deceleration in intermediate gears, mild gradients, and periods of 30 and 40mph top-gear cruising. The results for each section are averaged out: typical figures for a Mini 1000 are 32mpg and 40mpg, giving a mean of 35½mpg.

Next, there is a brisk drive from a cold start over a 20-mile stretch of A- and B-class cross-country roads, with a hillclimb and a descent. For this, the Mini turns in a mean of 44½mpg.

For the third test, the car is driven in a gentler manner over the same 20-mile rural route at speeds of 40mph or slower. The mean of two runs this time yields

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Where there's muck, there's brass—the gritty nitty of the DRIVE economy tests

the rule; but a rule it seems to be. I recently conducted a small—but not insignificant—poll among the people at an auction mart in Penrith, a canny, commonsensical Pennine town where goods and chattels (especially those bought and sold by the farming community) are priced intuitively to a tenth of a penny. It is in an area, also, where the relative merits of different cars are earnestly discussed.

But not one of 15 car owners I asked could tell me *precisely* what his or her vehicle returned to the gallon. Sensibly, they almost all quoted—or guesstimated—two ranges: one for local knockabout driving, and one for long runs, which here tend to be the 600-miles-or-so round-trip to the Smithfield Show in London. But, comparing their answers with roadtest figures in major magazines, with manufacturers' brochures, and also with each other for identical makes, there is a discrepancy of 8–12%.

It comes as no surprise—save



a consumption figure of 51.75mpg for the Mini. Lastly there is a motorway cycle, using a formula based on a constant speed of 70 mph or 85% of maximum speed, whichever speed is the lower. On this basis, the Mini's fourth test figure is 34.75mpg.

Over and above this, the AA testers take an overall figure from having driven each car for a total of 1000 miles and keeping a log of all petrol used. Averaging out *all* these tests gives the DRIVE overall figure—for the Mini, 42½mpg.

The comparison, as Denayer points out, emphasises the inefficiency of short-trip motoring. More importantly, it irons out idiosyncracies and peculiarities: small cars use more fuel on motorways than in suburban driving, whereas the opposite is true of larger models.

How do the results of a rigorous test such as the AA's compare with ECE15 quotations? There can, in fact, be quite a large discrepancy between the rolling-road results and the equivalent figures obtained in the AA's tests (see panel, this page). Indeed, it is

practically the same as the range instinctively generated in my Penrith poll and reflected by other tests.

The difference is that the AA figures—knowing the circumstances under which they are obtained—have a far greater credibility than any other available to the British motorist.

All figures are something of a compromise, obviously, where fuel consumption is concerned: you and I, as Denayer is at pains to emphasise, would never achieve exactly the same results as each other. But ECE15 leaves *so much* out of account. It does not, for instance, enable the car to get into top gear at all in the urban-cycle test. Not unless it's an automatic, that is—an ambiguity that makes it possible to 'prove' (wrongly) that an automatic is more economical than a manual equivalent.

In a previous issue of DRIVE (Summer 1975), Doug Houston strongly criticised the use of a constant-speed test cycle and argued that, if a revised form of mpg assessment were ever to be made law, it had to be 'absolutely

HOW THEY RUN

	AA results			ECE15 results		
	Suburban	Rural	Overall	Urban	56 mph	Mean
Audi 100LS	21½	33½	29	19	34	26½
Fiat 127 (1976 version)	36	51	41½	27½	41	34
Mini 1000	35½	51¾	42½	36¾	38¾	37¾
Renault 5GTL	34½	48½	42	32½	57½	45
Fiat 126	42	55¾	48½	32½	47	40

representative'. That, he added, would be an expensive business.

It was, Houston went on, important that the driver knew *exactly* what he was being asked to believe, when faced with mpg figures.

Denayer brings that point up to date: 'The great danger of ECE15 is that the average motorist may feel that the figures carry unquestionable technical authority.'

It is a danger that has not escaped the trade itself. The manufacturers—notably Ford—have endorsed AA representations on the matter of ECE15 and generally support the Association's own test procedures as being about the most rigorous and realistic. In the sales sector, there is a pronounced feeling of disenchantment, expressed with notable force by Alan Dix, director general of the Motor Agents Association.

'We as an association can recog-

nise the anxiety to protect the public against false claims,' says Dix. 'That's fundamentally right, and we applaud any attempt to improve matters. But this is a senseless and expensive piece of legislation that puts us in an impossible situation.'

Dix insists that the MAA is not opposed to consumer protection or to the public's right to know the facts when making comparisons between competing products: 'The place for that, though, is in consumer-advice bureaux—not in our car showrooms. We regard the ECE15 directive as a damaging, cumbersome and impractical imposition, and it is our belief that the figures we will be forced to display and the HMSO list we'll be compelled to carry will serve to confuse the average motorist.'

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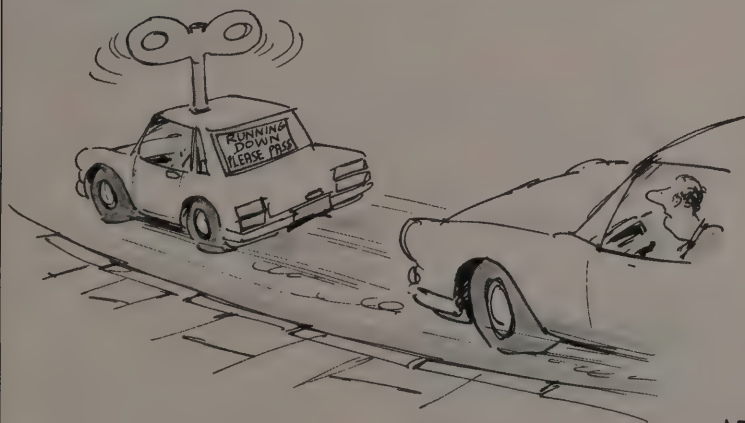
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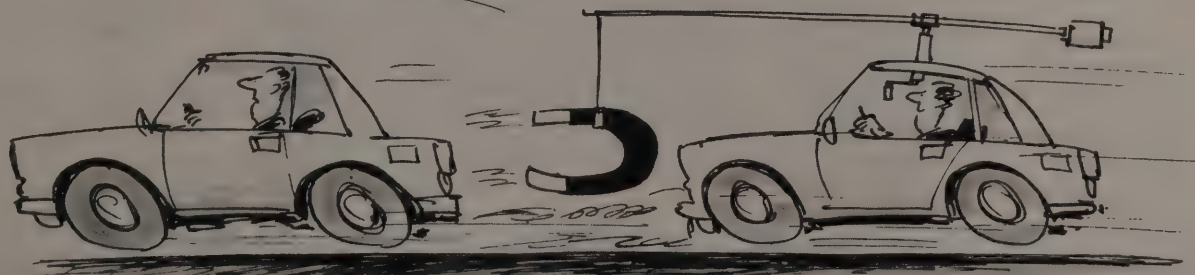
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'TYPICAL . . . acceptable . . . below average . . . needs a new body'—just some of the comments from AA engineers when they inspected five secondhand cars chosen by DRIVE readers.

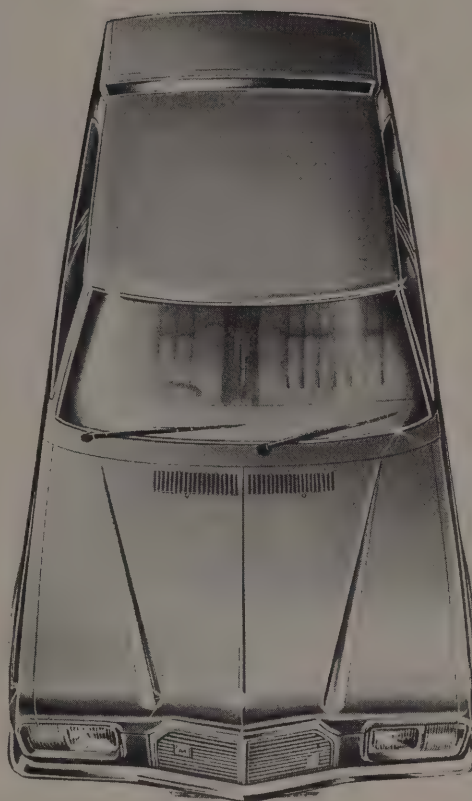
Each issue from now on, DRIVE will press a notional sum of money into the hands of five motorists and ask them to explore the used-car jungle for their own 'best buy'. This time, we thought that £1000 would have been enough to keep the buyers out of 'banger land', but one reader quickly discovered that it's possible to waste a 'grand' on a mobile scrapheap, if you lack experience.

Bernard Barton's Austin Maxi 1750 had a body that was held together only by the rust that riddled it. He was won over by its damask-red paintwork, but the AA's tester firmly reported that 'Purchase is NOT advised' after failing the car on 40 out of 116 test items. He would have examined a further 59 points on the Maxi—if it had been safe enough to withstand a brief road-test.

Only one of DRIVE's buyers fell for a foreigner—a Toyota Crown 2.6litre automatic. His logic was that, as hardly anyone would want it, the car should be cheap. And he could have done worse. Another buyer declared that an automatic gearbox was essential to help his wife out of the drive without thumping the gatepost.

Two Birmingham motor traders revealed a grudging respect for the AA engineers' fault-finding skills, demanding of our Midlands shopper a non-returnable cash deposit of £20 before they would allow AA inspections. On top of the £15-plus fee for an inspection, that puts a lot of pressure on customers to take their chances and buy 'as seen'. But, in our shopper's case, the garages lost a potential buyer.

When DRIVE's £1000 bargain hunters read the brutal truth about their best-buys, most agreed that, without expert



help, hunting for horsepower is like trimming the lawn with nail-scissors: it's possible, but not recommended!

VAUXHALL VICTOR 2300SL

George Wilkie, 35, runs a Peugeot 504 estate in his work as a Glasgow company director. So, for his £1000, he wanted a vehicle to run as a second car. 'I travel with two dogs and a quantity of equipment during the week,' says George, 'and at weekends my wife always fills the car with clutter. So I was looking for something rather spacious. I scanned all the local newspapers and rang a garage advertising

a 1974 Vauxhall Victor 2300. I was amazed at the service—within minutes a salesman brought the car to my door so that I could test-drive it.

'I'd never thought much of Vauxhalls before, but this car was a revelation—it handled very well, was superb inside and the engine looked positively sparkling—despite the 42,000 miles on the clock. The gearbox and engine were guaranteed for three months or 5000 miles, so the £1050 we agreed on was a bargain.

'My second choice was a 1973 Fiat 128 for £995. It had done the same mileage as the Vauxhall, but the steering was most peculiar—very heavy—and the brakes far too fierce.

'I did consider another Peugeot 504, this time a black 1972 saloon at £1095, but it was so shiny that I immediately suspected a respray job.'

Second opinion

The AA engineer felt that George's Vauxhall was 'acceptable for its age and recorded mileage'.

The body sported a dented rear door, a mark on the roof, blisters on a front wing and a damaged seatbelt stowage clip. The windscreen was scored, and damage was found on a front door trim and the driver's seat—cosmetic problems only.

A full service would have cured the pitted contact-breaker points and dirty oil. (The oil level was also low, caused by leaks in the rocker cover and sump.) There were problems with the fuel system and a number of minor electrical faults, including reversing, stop and courtesy lights that didn't work.

The Vauxhall was fitted with five good-quality radial-ply tyres with plenty of life in three of them. One front tyre was wearing unevenly, indicating the need for a steering check—a minor job. The suspension was in good condition, and the

VICTOR SPOT CHECKS

Bodywork Underbody rust protection is usually good, but check that the sealant is intact, especially in the mudtraps behind the headlamps and in the tail of the rear wheel arches. It is worth fitting mudflaps to avoid paint chips along the sills, but little can be done about the rough finish around the door edges that leads to paint blisters and rust, especially along the lower edges.

Engine A simple timing check should cure the common misfiring problem, and an easy adjustment with an Allen key will quieten noisy valve-gear. Old 2.3litre Vauxhall engines are normally clattery as the oil pressure is slow to rise—another sign of middle age. Sluggish, high-mileage models should have their compression checked. Oil leaks can be expected, especially at the cam-cover joint and crankshaft seals.

Transmission A little clutch judder is not serious, but slipping under load indicates that the unit is on the way out. The clutch cables have a relatively short life—replacements are cheap. Expect some gearbox whine in intermediate gears—it's typical of Vauxhalls—but lots of transmission noise warns that expensive repairs will soon be needed on the back axle. Sticky gear-changing can be caused by dirt in the shift mechanism—curable without expense and only a little trouble for the basic handyman.

Suspension and steering Dampers go soft by 30,000 miles, so check with a bounce test. Uneven tyre wear could mean that a previous owner simply has not paid attention to pressures—or that there are worrying steering or suspension faults. With the car jacked up, hold each front wheel top and bottom and rock it: movement indicates

worn king- or swivel-pins; side-to-side movement indicates worn wheel bearings, another job for a mechanic. Make the usual check for steering-joint wear—'feathered' tyres and uneven tread wear.

Brakes Excessive travel in the brake pedal could be a sign of expensive repair bills on the way. Check at low speed that the brakes do not pull to one side—use a quiet road for an emergency stop from 25mph. If the pull-up is not square, check brake-linings and cylinders, the pipes and all the flexible hoses for wear.

Electrics Check lamps, wipers, washers and instruments. This car is not noted for electrical vices, but models fitted with over-drive are prone to faults in the gear-lever selector switch and gearbox solenoid—home mechanics beware: this is strictly a main-dealer job.

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SECONDHAND REVIEW

factory-applied underbody protection was wearing well.

From here on it was hard to fault the car. The gearbox, transmission and brakes were all in good order, although Glasgow weather made road-testing difficult: fog and ice kept the tester's speed under 40mph—but that was enough to discover that the temperature gauge was broken.

Generally, the few vices in George's Vauxhall could be cheaply corrected to make it the choicest car of the group.

FORD ESCORT 1300 ESTATE AUTO

Colin Payne, 43, a bank official in Bristol, runs a Ford Cortina MkII estate automatic, and decided to go for another estate.

'I was amazed when I started car-hunting: it seems you can't get much for £1000 these days. The Escort had a new engine with 58,000 miles on the clock. The body had been guaranteed against rust for six years, and there was still a year to go. But it was the automatic gear change that really sold this car to me. This car did have a dent on the offside wing, but I'd suspect any 1972 vehicle without a mark.

'My second choice was a one-owner K-registered Morris Marina 1.8TC going for £1095; the salesman said he'd knock off £95 if I paid cash. I also liked another Escort, but I noticed that it had a new offside wing, which made me suspect that it might have had a nasty knock also.'

Second opinion

This Escort was considered fairly typical for its age and mileage, despite a long list of items requiring attention. Colin saw it before the Bristol dealers had worked on it, and the AA inspector thought that the majority of its problems would be solved before its sale.

Paint condition was poor but partly compensated for by a good underbody and general anti-rust treatment. Accident damage was clearly seen on a front wing, where body-filler was cracking and falling out. Most of the car had been resprayed, but there were still signs of scraping down the left side, plus the usual dents and chips round the rear wheel arches. Further evidence of poor crash-repairing was the misaligned front bumper and an odd, dented hubcap.

The cooling system was in good condition, apart from a top heater hose that was almost worn through from rubbing on the inlet manifold.

Engine misfiring was caused by high resistance in a plug lead—a minor fault—and a compression test confirmed that nothing more was amiss. A slight oil seepage was described as 'acceptable'.

The Pirelli Cinturato radial-ply tyres still had plenty of life, but the uneven wear and 'feathering' suggested the need for a steering-geometry check. Slight play was found in one wheel bearing and, on the other side, a suspension strut was leaking fluid. The final road-test only revealed that, as in the Vauxhall, the temperature gauge hardly moved.

Colin had chosen a sound engine in an

older, crash-damaged body, but it is usually cheaper in the long term to buy a good body and compromise on the engine—it's simpler to repair. So, with the added complexities of automatics, Colin's choice could be an expensive one.

ESCORT AUTO SPOT CHECKS

The automatic Escort gearbox should change down into first at about 20mph—listen for abnormal noises. Early (Borg Warner) units can be replaced for about £150 (exchange price), but there is no factory exchange allowed on Ford's C3 automatic transmission fitted to later models. The auto-box's oil level and oil quality should be checked with clinical care—if it's turning brown or black, the unit could be overheating. See also Toyota spot checks.

TOYOTA CROWN 2.6 AUTOMATIC

Fred Pocock, 42, a builder from Palmers Green, N London, decided to go foreign in a big way. 'Really, the sort of car I like costs a bit more than £1000,' says Fred. 'So, knowing that most people favour small cars because of the running costs, I thought I'd get a bargain by choosing either a larger car or a foreign car with expensive parts that might keep the selling price down.'

'I set off to visit all the main garages nearby and must have spent about five hours on the road. The Toyota Crown 2.6 seemed cheap at £895 and was in good, clean condition inside and out. I realised that, for a 1973 car, 76,000-plus miles on the clock was high, but, with a large engine and automatic gearbox, a car like that takes very little punishment. I like big-engined cars. It isn't that I drive fast all the time, but I like the power to be there when I need it.'

'I did also look at a white Marina 1.8 for £1075 in Enfield, and a couple of Austin 1800s—one marked down by £200 to £895—in Tottenham, but I don't think I could have relied on them. The worst car I saw was a K-registered Ford Cortina 1600. It was in really poor condition, and the garage was asking £945—shocking.'

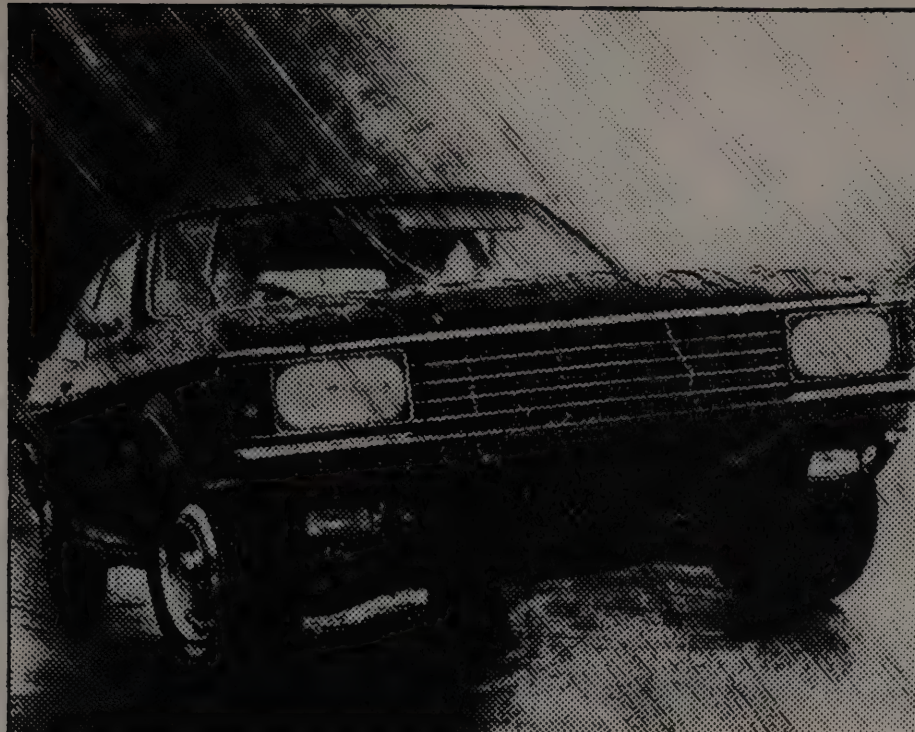
Second opinion

'Basically sound' was the verdict on Fred's Toyota from the AA expert—who noted the mileage at 55,743...

The bodywork on the M-registered car needed a fair amount of work. It was covered in small dents, undulations and chipped paintwork. A close look revealed evidence of repaired accident damage. The telltale sign? Paint on adjacent body panels was of slightly different colours.

There was a dent on the bonnet moulding and the boot badge was missing. Water was found in the boot well (but see DRIVE's long-term test on a new Ford Cortina, page 42).

A tune-up was prescribed for the 2.6litre engine as the tester felt it was not giving its best. Several coolant hoses needed replacing urgently, as did the fanbelt; a good service should have changed the badly pitted contact-breaker points. No problems from the automatic gearbox, and



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John Brundie (Motors) Ltd. 055 381 406
NORWICH
H. L. H. Rustproofing Centre. 0603 43031
PETERBOROUGH
Clark Bros. Services Ltd. 0733 61481

South East
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Lloyd Payne & Sons. 0296 5579
BANBURY
North Cross Service Station Ltd.
0295 3256
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Basingstoke Rustproofing Service.
0256 22664
BUCKINGHAM
Phillips & Son (Buckingham) Ltd.
028 02 2121
CHELMSFORD
Chelmsford Rust Prevention Centre.
0245 52331
CHELSEA
Carnies, Dinitrol Rust. Centre. 01-351 2124
CHICHESTER
West Sussex Dinitrol Rustproofing.
024 353 743
COLCHESTER
Blackbox Harwich Road Garage.
0206 250181
EVERSLEY
Centre Garage (Eversley) Ltd. 0734 732160
FOLKESTONE
Kent Auto-Panels Ltd. 0303 75428
HIGH WYCOMBE
C.R.P. Coachworks Ltd. 0494 28997
KIDLINGTON
P.J. Jones Ltd. 086 75 3811
LEITCHWORTH
Ensign Engineering Ltd. 046 26 3722 Ex. 32
LUTON
Lynrosa Motors Ltd. 0582 31914
SHEFFORD
John R. Ford & Sons Ltd. 0462 813242
STEVENAGE
Stevenage Rustproofing Centre.
0438 58118
WANTAGE
Orbit Motors. 0235 87257
WOODFORD GREEN
L. & G. Auto Services Ltd. 01-550 6765

South West
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North Devon Rustproofing.
Parracombe 284
BRISTOL
Bristol Dinitrol Centre. 0272 290441
BURNHAM-ON-SEA
Charles Services (Motor). 027 878 3974
CHIPPENHAM
Phillips Car Body Works. 0249 782541

DORCHESTER

Dorchester Dinitrol Centre. 0305 66066
EXETER
Burrows Coachworks Ltd. 0392 34666
FERNDOWN
Auto Body Repairs. 0202 874535
GLoucester
Westgate Motorhouse. 0452 34581
PLYMOUTH
Evans & Cutler Ltd. 0752 338373
SHAFTESBURY
Melbury Motors. 0747 2682
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Barnpton Bros. Ltd. 0793 35547
TOTNES
Evans & Cutler Ltd. Totnes 862466
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Andersons (Newton Mearns) Ltd.
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Kyle Bros. Kelso 2660
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Donald Noble & Sons. 046 382 296
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John Scarth Engineering Ltd. Kirkwall 2601
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Stirling Rustproofing Services. 0786 5101
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John Stewart & Co. Ltd.
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Tralee Rustproofing Centre.
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Lindsay Cars Ltd. Lisburn 2683
ENNISKILLEN
Enniskillen Rustproofing Centre.
Enniskillen 3811
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Samuel Davidson. Dungannon 2896
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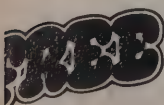


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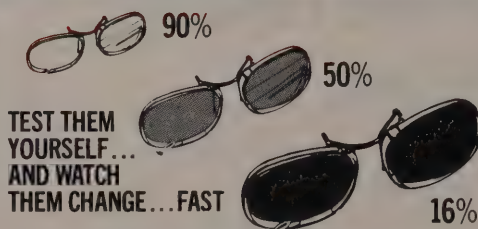
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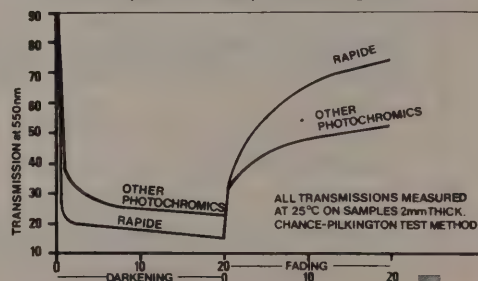
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AA

the sharp, unprogressive action of the brakes improved once they had warmed to their work.

As usual, there were a number of failed bulbs—on the driver's door courtesy light, seatbelt and handbrake warning lamps, and in the inspection lamp under the bonnet. The seatbelts would have failed an MoT test as the buckles didn't work—a fault that might explain the failed 'belt-up' warning buzzer.

Steering was judged problem-free, apart from a misaligned steering wheel—a common problem (again, see long-term test). Two tyres, however, were below the legal minimum-tread-depth of 1mm. The suspension and underbody rust protection were both sound.

A last look at the ancillary equipment uncovered a washer jet that needed repositioning to hit the screen, but the rest, including a radio-cassette, was A1.

Fred's theory about a good big engine lasting longer than a good little 'un is reasonable, given similar care. But, like Colin Payne, Fred would find the upkeep of its damaged body expensive. And, if that Japanese auto box ever failed, well...

CROWN SPOT CHECKS

Automatic boxes are difficult for a novice to check. Try accelerating hard from rest, and look for smooth changes in all the gears. Then lift off, and again check that all changes-down are smooth. The owner's manual will indicate the correct mph at which each gear-change should occur. Early Toyotas lose their paintwork shine, and chipped metallics are very difficult to repair invisibly.

AUSTIN MAXI 1750

Bernard Barton, a 55-year-old assistant office manager in Manchester, looked at 10 cars before discovering his Maxi 1750. He has run a Morris 1100 Countryman for seven trouble-free years, so he is a confirmed Leyland man. 'I'd never buy a foreign car. I think they depreciate faster and, of course, repair costs are higher.

'I'm a fanatical rose-grower,' says Bernard, 'so the Maxi is ideal for transporting boxes of plants. The car had a good external appearance and had obviously been well maintained.

'I wanted a car that was going to give me a good return for my £1000. I realise that 57,000 miles on the clock seems high for an L-registered car—but on a quality vehicle like this one it shouldn't really be a deterrent.'

After reading what the AA engineer thought of his 'well maintained' Maxi, a stunned Barton replied: 'I was amazed. I expected there to be a few things wrong—but nothing as bad as this. The car looked so clean and good.

'It just goes to show that all that glitters isn't gold. I've always wanted a damask-red car, and perhaps that's what attracted me to it. It just goes to show that, unless you really know what you're doing, you need someone to help you choose. Once I'd got over the shock of reading the report, I went straight to my 1100 and found several things wrong. I suppose you

could say I'm lucky to have learned a painless lesson.'

Second opinion

'A below-average example of the model in an advanced stage of corrosion, to the extent of requiring a new body,' said the AA's inspector. He added: 'Many other serious defects are also present, and it is questionable whether the extensive repairs required are economically justifiable.'

Rust had taken a firm hold in the sills, the floor, one front wing, the tailgate and roof-gutters. The bumpers were dented, there was 'excess' body filler and obviously poor-quality respray work on the lower halves of both sides of the body.

Lifting the bonnet revealed another disaster area. While the oil level was correct and there appeared to be no leaks, the engine was suffering from burnt and pitted contact-breaker points, worn mountings and stabiliser-bar bushes. Valve clearances needed adjustment, and the corroded battery mounting was on its last legs. There appeared to be no coolant at all in the radiator, and leaks and splits were found in many of the hoses. On the electrical front, the interior light, headlamp flasher, horn, one stoplight and a reversing light were all out of action.

Tyre-wear was uneven and the two Moremiles radial remoulds on the back were especially poor—one having severe cracks in its walls.

A suspension check revealed split and worn mounting bushes, both front and rear, and the underseal had deteriorated to such an extent that holes were appearing in the floor! Brake pipes were described as 'rusty' although acceptable for their age, but the handbrake operated on only one rear wheel. The outside of the gearbox was covered in oil.

In fact, so many things were wrong with the Maxi that the AA inspector decided not to risk a road test, normally the last stage of his 175-point examination.

Bernard's experience proves that expert advice is safer than brand-allegiance.

MAXI SPOT CHECKS

Check that gears, particularly fifth, do not jump out of mesh under hard acceleration—it's a common fault on pre-1970 Maxis that means expensive repairs. Make sure that the engine mountings are not cracked or broken, as the consequences would be disastrous. Expect a sticky and noisy gearbox on all Maxis, especially on pre-1970 models with their unhappy cable linkage. Generally low suspension means that the Hydrolastic system needs pumping up, but a lopsided stance involves an expensive repair.

FORD ESCORT 1300L ESTATE

Bruno Gilbert, 24, is an industrial design student at Leicester Polytechnic. He used to own a Mk I Cortina, but, when repair bills threatened to cost more than the car itself, he had to get rid of it. He was looking for a low-mileage hatchback: 'I need a car that can take all my equipment, but I soon found out that hatchbacks are too new on the market for there to be

cheap secondhand models. So I decided to concentrate on L- or M-registered Escort estates.'

The first dealer I visited in Leicester showed me a yellow M-registered 1300L estate with 36,000 miles on the clock, priced at £1100. He was in the process of removing "surface rust" and said that the car would soon be immaculate. When I asked about having an AA inspection he was quite happy, and suggested that for an additional £50 I could have a guarantee covering the engine, clutch and gearbox.

'My second choice was a white Escort estate priced at a bargain £850. This one was shoddy by comparison, and, judging by the colour variations in the paint, I'm pretty sure that it had been resprayed. The salesman said he was happy about an AA inspection, but added that the price could go up to £1100 after the test.'

Second opinion

Bruno's one-owner Escort turned out to be only average for its age. The AA inspector was far from impressed by the paintwork, with runs on one door, blowholes in the paint's surface, unfilled paint chips and overspraying on the rubber trims. The interior was clean and tidy, with just a worn mat and kick-panel on the driver's side. The driver's seat mechanism was worn and slack, half the instruments would not light up, and the interior light worked only intermittently.

All four road tyres were good, but the spare was only just legal. Despite Bruno's checking, wear was also found in the steering assembly.

As usual with Ford, the underside was primer-coated only. Paint had begun to flake and surface corrosion could be seen around body sills and seams. A worrying feature was the extensive corrosion on the brake pipes, and both the handbrake and footbrake required adjustment.

When the tester started up for the road-test, the choke's mounting came adrift. Driving revealed a tendency for the steering to wander, poor self-centring and a lack of directional stability, so a steering-geometry check was essential. The fierce clutch also demanded attention.

Only an average car, but, with its original engine and a manual gearbox, Bruno could find that his bodywork and transmission maintenance costs were cheaper than for either of the automatics chosen by DRIVE readers.

ESCORT ESTATE SPOT CHECKS

Escort front wings are notorious for harbouring rust that eats through from the inside, especially on pre-1970 cars; watch out for filler. Water also creeps into the passenger compartment—look under carpets—and the boot. Front-seat frames are liable to fracture at the backrest-squab joint, and springs can press uncomfortably through the thin padding. Ford's Kent engine is robust and cheap to repair, although the carburettor may need a major service after 30,000 miles. Check the front suspension struts for oil leaks—an expensive omen.

Letters

Views to air? Tell DRIVE about your motoring and what it means to you.

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Anchoring in Marinas

To make my seatbelt a more comfortable fit, I asked my garage to move the door-pillar anchorage-point in my Morris Marina. But I was put off the idea by the estimate of 'at least £200, because the door pillar is angled.'

I consider it foolish for any driver not to use a seatbelt, but the uncomfortable fit of some designs perhaps goes some way to explaining why so many drivers don't. People come in very different sizes, yet manufacturers make little allowance for them. Why can't points be adjustable?

Dr A G Wheeler

Wythall, Worcestershire

DRIVE's Clinic staff point out that Leyland produces a seatbelt extension kit to fit all its models that has the effect of lowering the anchorage point... and costs approximately £1. If this doesn't help, consult the manufacturer direct.

The positioning of anchorages is strictly controlled by BSI standards, and there are few points on a car's

frame strong enough to take the strain imposed by a belt during an accident. To have the anchorages moved legally and safely must, therefore, be a costly job.

Weaving a shroud?

I'm one of those motorway weavers accused of being 'outrageously selfish' by Miss E H Samuel (Letters, November–December). But, to my mind, the really selfish drivers are those who don't return to the nearside lane after overtaking, or who keep others waiting while they pass vehicles moving only a fraction slower than themselves.

On the Continent, the standard of driving is much higher. Slow vehicles are prepared to give way to faster traffic, and quickly respond to signals from cars wanting to pass. In Britain the usual reaction to flashed headlights is two raised fingers from the offending driver as he blocks the overtaking lane for miles. We need education on the correct use

of motorways, with frequent reminder signs on the roads themselves to encourage lane discipline among drivers.

Incidentally, the majority of my driving is done not in some GT special, but a Renault 4.

J C Dunnett

High Wycombe, Bucks

Hitching post

Your article on hitch-hiking (November–December) gave the impression that many hikers are either violent or are the victims of drivers' violence. Surely this is getting things out of perspective and ignoring the hundreds of people who hitch every day, reaching their destinations unharmed?

Hitch-hiking is not the most reliable form of travel at the best of times, and articles like this will not improve the situation. I'd like to have seen some mention of the benefits of hitching—and people left to make up their own minds whether to hitch or give lifts.

Michael Trubridge

Bembridge, Isle of Wight

Sedative sedan

As an 85-year-old motorist, I was interested in your recent article on elderly drivers but I disagree with its implication that old drivers are anxious drivers.

I find—as do many of my older friends—that driving is a great form of relaxation. I sometimes go for a drive just to soothe my nerves. Perhaps it's because, at my age, I'm seldom in a hurry.

Norah H Nicholls

London W1

Torque it over

DRIVE's article on over-tightened wheelnuts (Home Mechanic, November–December) highlights a problem that even 'skilled' mechanics seem to regard with indifference.

After a garage maintenance job on my car, I found six nuts on the front wheels tightened to over 100lb ft—double the correct torque setting. Two were beyond the 110lb ft-limit of my torque wrench and I had to bounce my full weight on the end of a 12in tommy-bar to release them.

This degree of over-tightening must surely amount to incompetence verging on the dangerously criminal.

P D Longhurst

Reading, Berks

Cities slicker

I was appalled by DRIVE's Viewpoint (November–December) on the government's Transport White Paper. The AA, reputedly acting on my behalf, seems to want to fight central and local government's every effort to restrain traffic in our overcrowded cities. Has it been taken over by extremists seeking to promote the motor industry's interests rather

than those of the membership?

Control of private, non-residential parking in inner cities could lessen the ravages of an aggressive transport policy that caters only for the needs of the motorist. What about those who rely on public transport in congested cities?

Peter Hastings

London SW1

Derek Dutton, the AA's manager of environmental affairs, says. 'The AA speaks for the users, not the makers, of motor cars. It is the users who would suffer frustration and unwarranted extra expense—not to mention the unwelcome attention of public "snoopers"—if private, non-residential parking controls and permits were to be introduced.'

Elastic deadline

The statement in your 'Artful Dodger' article (September–October) that 'legislation is only really effective against the basically honest, house-owning citizen in steady work' is confirmed by my experience.

Not long ago, I needed to renew my driving licence. It had to go to the DVLC at Swansea, and I waited a fortnight to get it back. Had I been asked by the police to produce a licence within the five-day limit, I surely would have failed and been fined. This five-day rule also applies to insurance and MoT certificates—would not a month be a much more appropriate time allowance?

No motorist should be inconvenienced to prove that he is complying with the law, at least in spirit. And that is what matters, isn't it?

J C Wilmot

Bristol, Avon

A police spokesman says: 'Failing to produce driving documents on demand is an offence, but we realise that not everyone is in a position to carry all the documents all the time, hence the five days of grace. If, after five days, a driver is still unable to produce these documents, he must report to the police, and, if his excuse is legitimate, we have the discretion to allow a further five days. But there comes a time when it is obvious that some people are just stalling for dishonest reasons.'

Road safety

Members of the County Surveyors' Society have been greatly concerned at what is considered to be the false impression created by many of the observations included in the article on road safety in the November–December issue of DRIVE. The society maintains a close interest in the overall policies and day-to-day implementation of road-safety programmes (particularly since the majority of its members control road safety within their overall responsibilities for transportation matters), and feels fully

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qualified to dispute the validity of many of the statements made in the article about the performance and attitudes of county councils on road safety matters.

Widespread experience of such matters in county councils all over the UK does not support the personal views of the secretary of the Institute of Road Safety Officers, which have been disclaimed by the institute and appear to have been the main source of 'investigation' for a large part of this unfortunate article. Indeed, information can be made available to substantiate quite the opposite view and would confirm, for instance, the very substantial progress made in recent years in the introduction of comprehensive road-safety programmes, improved co-ordination between the various parties involved, development of better training programmes, etc.

The society would also wish to stress that anyone acquainted with the justification and evaluation of highway schemes would be aware of the fact that consideration of accident savings is an important part of the detailed examination that is carried out, and consequently it is difficult to appreciate the basis of the opinions expressed on the non-justification for highway schemes. In fact, most counties give special emphasis to

schemes that are expected to be particularly successful in reducing accident rates.

In summary, the County Surveyors' Society regrets that so little effort appears to have been made to prepare an informed and balanced report on road safety and other associated highway matters, and would be pleased to offer assistance in the preparation of a more correct report in the future.

B Arthur
Northumberland CC Surveyor
on behalf of the County
Surveyors' Society

I refer to the article 'Road safety. Wanted: someone to pick up the pieces' (November-December).

It is most regrettable that wording used implied that the views expressed by David Clarke were official views of the Institute of Road Safety Officers.

Such views are not the official views of the institute. David Clarke has never been authorised by the institute to make any such statements on its behalf.

I hope that you will find it possible to publish a disclaimer on behalf of the institute so that this wrongful inference may be corrected.

Leonard Newman
National Chairman
Institute of Road Safety Officers

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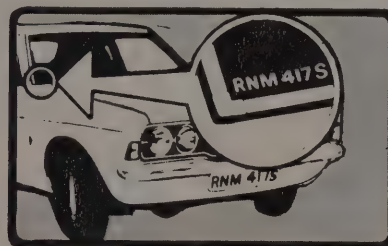
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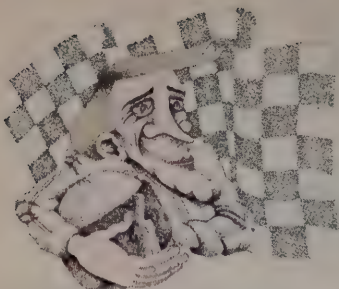
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LAP RECORD Fast bucks

THE ONE THING that makes a racing car go faster than more horsepower is more money—and this year's 16-event world championship for Formula 1 grand prix cars carries with it a 'pot' of almost £4 million.

That's just the above-the-line figure; in other words, it's the money put up by the 16 organisers in 16 countries across four continents. Each one of them—Brands Hatch, Monte Carlo etc—puts up more than £200,000. The elite, highly organised, tight-knit circus of self-governing race-car builders divvy this up, allocating some to travel expenses, some to appearance money and the rest to a prize kitty for each event.

There are 14 teams regularly contesting in the series, and they run long and hard in the fight for their share of the £4 million pot, with a season that starts in January in the Argentine and goes on to America in October. Murphy's Law being what it is, the richest teams run fastest and collect most of the money; the poor stay poor. There's little difference between the jungle and the race track.

But what *is* it that makes a team healthy, wealthy and able to run fast? Well, basically, because it has been successful, it will attract backing from big firms such as Marlboro, John Player and Elf oil. These multi-nationals will contribute up to £750,000 each to their chosen team each year for the privilege of having their names emblazoned on fast cars. Flush with money, the successful teams are able to go out and hire the best drivers; best drivers driving the best equipment get the best results; and so the money stays with the monied.

The Big Six wealthy aristocrats of the racing world are Lotus (backed by John Player), McLaren (Marlboro), Tyrrell (Elf), Ferrari (Fiat), Brabham (Parmalat) and Wolf (self-financed). They are courted, cosseted—and even when they fail to win they still stay ahead financially, thanks to the kitty.

Then there's the faded middle class—some money, some minor successes . . . but not enough of either to elevate them to the peerage. The French Ligier-Matra, for example; and the new

blue Renault team which, because of too many untried features in its Formula 1 cars and a middle-weight driver—Jean Pierre Jabouille—has failed to impress.

There's also the struggling working class—those who coast along on the smell of an oily rag, or who exist by taking on drivers they wouldn't normally want, but who carry with them valuable personal financial sponsorship.

Into this hand-to-mouth category falls, curiously, the noble Hesketh team, recently rescued from obscurity by the backing of Olympus cameras; Ensign, the tiny Walsall, Midlands, firm which, despite building a sound car, has been unable to sustain a lasting relationship with either drivers or sponsors; Surtees, which has some money from Durex but takes on drivers who seem to bring with them more money than talent; and March, which struggled for seven years before selling out to the German firm, ATS. There was also BRM, which, with cumbersome cars and management to match has just reversed itself out of the picture. And others.

Happily, however, motor racing is a meritocratic society, and the working class of today is the aristocracy of tomorrow—if only it can see enough of the chequered flag. It is this belief that sustains the men and the cars and the back of the grid.

They all cry poverty and produce begging bowls at the drop of a hat. Yet, during last winter's 'lay-off', one wealthy, would-be

team owner did the rounds of half a dozen flagging teams, offering to buy his way in with £200,000 and a deal of business knowhow. Not one wished to share their failure and poverty with him. So how poor is poor?

Drivers and engines make the biggest holes in team budgets. The 500hp Ford V8 engines that most teams use cost over £12,000 each—and Wolf, for example, has seven. After each race, they go for a check and overhaul that costs £2500 . . . and that's only if no repairs are needed.

Front-running drivers earn upwards of £100,000 a year. In the January of 1977, his world-championship year, James Hunt was offered a straight £1million as a 'buy out' on his next year's earnings. He turned it down—'The right thing,' he assures me, from his Spanish tax haven.

A good driver with the commercial and public appeal of Hunt can equal his on-track earnings with off-track activities—personal sponsorships, advertising endorsements and personal appearances. Not many of today's top stars will get out of bed in the morning for less than £1000 a day.

But it's a short career. Today's GP driver will have spent half a dozen years serving his apprenticeship in the junior formulae before graduating to the big league. During his six years, he may have made ends meet, but more likely he ran at a loss. James Hunt arrived in Formula 1 still carrying with him the balance of a £1000 HP debt for buying his first

Formula Ford racing car. Tony Brise ran at a loss of about £2500 a year for two years before he got into F1.

'It was,' he once told me, 'a speculative investment, set against the opportunity to earn a million in five years.' But, tragically, he died in 1975—in the plane crash that killed Graham Hill—almost before his five years had begun.

Once in the big league, the star performer will have maybe six years earning the sort of money that will turn him into a tax exile. Jody Scheckter, South African son of a modest garage owner, now lives in penthouse style overlooking Monte Carlo harbour. 'I calculate and minimise the risks as best I can,' he says. 'I'm not racing to enjoy myself. I'm making money. Enjoyment comes when I retire. *That's* what I'm working for.'

Retirement is something that a great number of drivers don't achieve. The seventies seasons have claimed many drivers, including Francois Cevert, Jochen Rindt and Tom Pryce.

In July, the British round of the money-go-round comes to Brands Hatch. It's worth a visit. For where else can you watch a man who will earn in a day more than the annual wage of the average spectator in a car that cost twice as much as your house—driving around in circles?

NICK BRITTAN

Ex-racing driver, now GP drivers' manager, Brittan will write about the sport in every issue of DRIVE



INSURANCE

Use-loss policies

FREELANCE architect Tony Pearce was certain that he had locked his car before leaving it all day. But when he returned to the north-London car park, his Ford Granada was not in its bay. Hoping he had simply forgotten where he had parked, Pearce searched every floor of the car park before he accepted the infuriating truth: his new Ford had become one of the 64,000 cars that are stolen each year in London.

The police shrugged helplessly and told him to give it a few days, in case the car had just been 'borrowed'. But, joyriders or not, Pearce decided to take advantage

of his insurance policy. After all, he'd told his broker to shop around for the best bargain in comprehensive insurance, and he'd got a good deal. He hadn't actually had time to read the small print yet, but, like many more car owners, he assumed that the insurer would pay for a hire car until either the police recovered his vehicle or—at worst—he got a cheque for a replacement.

But Pearce's cover wasn't quite as comprehensive as he hoped: the broker explained that he would have to wait at least a month before he got a penny out of the insurer, as the stolen car just might reappear in that time. Not only that, the policy had to include cover for 'loss of use' before a hire car's cost could be entertained—and Pearce's budget-priced policy did not. To make matters worse, it soon became clear that his Granada was among the 75% of cars stolen in London that are never seen again.

After the luxury of his big Ford, shopping around the hire firms for an economical saloon was a depressing business. But a car was vital for progress-inspections of his building projects, and Pearce had to resign himself to paying around £200 a month for

the hire of even an inferior replacement.

'I know of only a few insurers that make some provision for a hire car under the terms of their normal comprehensive policies,' says Mike Saunders, the AA's motor insurance manager. 'Separate policies are readily available, giving benefits of around £8 a day for up to two weeks at an annual premium of £15-20. But, surprisingly, there is no great demand for them—possibly because most motorists, like Pearce, think that they are already covered.'

But Pearce's broker had even more bad news: he was sure to lose his no-claim discount, even though the loss of his car was hardly his fault. He had to go back to a two-year no-claim discount that, at current prices, made his net insurance bill £228—a £100 rise. It would take him three years to get back to his original premium, before his car was stolen.

After all these shocks, Pearce had one stroke of luck that many motorists couldn't expect: his accountant told him that the whole cost of the month's hire was an allowable expense that he could claim against tax. ●

AA

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Amount of loan	12 Months True interest 17.5% p.a.			24 Months True interest 17.5% p.a.			36 Months True interest 18% p.a.			48 Months True interest 17.5% p.a.			60 Months True interest 17.5% p.a.		
	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.
£	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p
200	218.04	18.04	18.17	235.92	35.92	9.83	257.04	57.04	7.14	276.00	76.00	5.75	295.20	95.20	4.92
300	327.00	27.00	27.25	354.00	54.00	14.75	385.56	85.56	10.71	414.24	114.24	8.63	442.80	142.80	7.38
400	435.96	35.96	36.33	472.08	72.08	19.67	514.08	114.08	14.28	552.00	152.00	11.50	589.80	189.80	9.83
500	545.04	45.04	45.42	589.92	89.92	24.58	642.60	142.60	17.85	690.24	190.24	14.38	737.40	237.40	12.29
600	654.00	54.00	54.50	708.00	108.00	29.50	771.12	171.12	21.42	828.00	228.00	17.25	885.00	285.00	14.75
700	762.96	62.96	63.58	826.08	126.08	34.42	899.64	199.64	24.99	966.24	266.24	20.13	1,032.60	332.60	17.21
800	872.04	72.04	72.67	943.92	143.92	39.33	1,028.16	228.16	28.56	1,104.00	304.00	23.00	1,180.20	380.20	19.67
900	981.00	81.00	81.75	1,062.00	162.00	44.25	1,156.68	256.68	32.13	1,242.24	342.24	25.88	1,327.80	427.80	22.13
1,000	1,089.96	89.96	90.83	1,180.08	180.08	49.17	1,284.84	284.84	35.69	1,380.00	380.00	28.75	1,474.80	474.80	24.58

For loans in excess of £1,000, total repayable, interest and monthly payments are pro rata. Rates at 12th Jan. 1978.



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First Names _____

Married/Single _____ (Tick as applicable)

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Date of Birth _____

Are you in good health? YES/NO _____ No. of dependent children _____

Full postal address _____

Postal Code _____

How long at address? _____

Tel. No. _____

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Living with parents _____ (Tick as applicable)

Profession or trade _____

Name of employer _____

Business Address _____

How long in their employ? _____

Bankers _____

Bankers address (in full) _____

Do you hold a Bank Credit Card? YES/NO _____

AA Membership No. _____

Purpose of loan (give details) _____

Total cost of goods or service £ _____

Amount of cash required £ _____

Repayment period required _____ months

Average net monthly take-home pay (i.e. after
deduction of Income Tax, N.H.I. Contributions, etc.)
£ _____ monthly

Any other income £ _____ monthly

Please submit your latest P.60 or other annual
advice or at least two monthly/weekly pay slips

Mortgage payments/Rent £ _____ monthly

Total of current hire purchase and credit payments
£ _____ monthly

Any other regular payments £ _____ monthly
(Give details)



You may make all enquiries necessary to enable you to consider this application and also disclose to the National Credit Register and Hire Purchase Information Limited details in respect of this transaction excluding any information relating to income. It is understood that you reserve the right to decline this application without stating a reason. Membership of the Automobile Association does not in itself ensure acceptance.

227

SIGNATURE _____

DATE _____



USED-CAR PRICE GUIDE

Looks aren't everything

It's surprising how much smarter an old car can be made to look by the addition of a pair of reflective numberplates, shiny new bumpers and even new pedal rubbers. And if that's all that the seller of your secondhand buy has done to lure you, you're lucky.

There are lots of other—more devious—tricks to which the unscrupulous can resort to turn a banger into the apple of someone's eye... even if they do get the pip after a couple of weeks. The beauty treatment can turn into a virtual fraud.

Just about the only way to discover Fred Karno paint jobs is... by looking: trying to spot subtle shading, or even changes in surface texture. But this needs good light and a dry car—so don't ever buy a used car in the rain.

A rusted chassis can be dangerously disguised with a coat of underseal—and some 'casually'-placed mud. So it's always worth getting under a car that is more than three years old, clearing away the mud, and being alarmed by obvious patching of the underseal. Suspect metal should be thumb-pressed; the more determined private buyer might even poke with a screwdriver—but at the risk of creating damage.

Under the bonnet, heavy-duty oil and proprietary additives can silence the mechanical moans and groans of an ageing engine—for a while, at any rate. The experts can tell by touch, rubbing oil from the dipstick between their fingers; the rest of us haven't much hope.

Bald tyres are easy to spot, so a seller might replace them with remoulds, but even the best of these are safe only up to 70mph and could present problems on a high-speed Continental holiday. They should be stamped 'Remould'—so beware of new-looking tyres with buffing marks.

A second opinion from the AA is always a good idea: an engineer's inspection of a used car costs members £15-£30.

To help you buy at the right price, DRIVE lists 100 of today's most popular models (prices assume the vehicle is in good condition for its age). Specifications are compiled from AA road-test reports, the reference numbers of which are shown in the final column of the table.

MAKE AND MODEL	engine cc	mean top mph	acceleration 0-60 in sec	overall mpg	insurance group	£ latest new price*	MODEL YEAR Average secondhand price guide							AA Road Test Report No
							1977	1976	1975	1974	1973	1972	1971	
Alfa Romeo Alfased SE	1186	92	16.1	32.5	4	D	2255	1870	1530	1235	—	—	—	354
Audi 80 L	1297	91	14.2	31.75	5	3999	3195	2480	2005	1610	1290	—	—	389
Audi 100 LS	1984	108	11.9	29	7	4995	—	2925	2280	1885	1440	1165	970	418
BMW 1602 Lux	1573	94	14.4	29.0	6	D	—	2575	2130	1935	—	—	—	363
Chrysler Imp de luxe	875	78	20.0	36.0	1	D	—	1160	995	850	720	610	510	258
Avenger 1300 2-door	1295	83	19.0	30.5	2	2315	2070	1530	1310	1110	—	—	—	337
Alpine S	1442	97	14.3	32.0	5	3477	2870	2430	—	—	—	—	—	381
Hunter GL 4-door	1725	86.5	15.0	28.7	3	3258	—	1885	1605	1380	1090	920	775	234
Sceptre Mk 3 auto	1725	97	14.1	28.6	4	D	—	2165	1840	1550	1305	1080	895	169
Chrysler 180 4-door	1812	101.5	12.0	27.0	5	3661	2860	1895	1440	1125	940	775	635	245
Chrysler 2litre auto	1981	102	13.2	24.0	5	4109	3270	2330	1885	1440	1115	—	—	308
Simca 1100GLS 5-door	1118	85	16.5	33.25	3	2803	2020	1600	1350	1135	955	790	650	298
Citroen 2CV6	602	66	37.2	44.0	1	1599	1325	1060	895	—	—	—	—	366 RI 1
Citroen Ami super	1015	88	17.6	32.5	3	D	—	1240	1030	855	700	—	—	348
Citroen GS1220 Club	1222	93	17.2	33.0	4	2795	2275	1780	1475	1205	980	—	—	384
Colt Lancer 1400 GL	1439	94	12.9	34	5	2933	2275	1805	—	—	—	—	—	371
Daf 44 Estate	844	72	32.3	35.0	2	D	—	—	1105	945	800	675	565	319
Daf 66SL	1108	79	23.5	29.0	3	D	—	—	1180	1000	850	—	—	317
Datsun Cherry 100A 4-door	988	83	17.7	41.25	3	D	—	1640	1400	1190	1010	850	715	284
Datsun 120Y coupé	1171	86	17.7	39.0	4	2540	2220	1925	1630	1380	—	—	—	336
Datsun Bluebird 180B	1770	104	12.3	27.0	5	2979	2295	1950	1650	1390	1160	970	—	316
Fiat 126	594	62	60.0	46.0	1	1424	1185	1020	885	760	655	—	—	334 RI 138
Fiat 127 2-door	903	80	15.9	36.25	2	1865	1565	1340	1145	975	830	695	—	268
Fiat 128 4-door	1116	86	15.5	34.0	3	2250	1775	1490	1270	1080	915	765	640	320
Fiat 131 1600S	1585	94	13.6	32.0	5	2962	—	2075	1760	—	—	—	—	369
Fiat 131 1600 S Estate	1585	96	14.2	32.75	5	3196	—	2275	2010	—	—	—	—	412
Fiat 132 1600	1592	102	11.2	23.0	5	D	2540	2055	1680	1515	—	—	—	307 RI 106
Ford Fiesta 1000 HC	957	83	18.4	41	1	2114	1905	—	—	—	—	—	—	417
Ford Popular 1.1	1097	77	23.6	35.0	1	2023	1785	1550	1335	—	—	—	—	RI 136
Escort 1100L 2-door	1098	80	20.6	34.0	1	2342	2100	1805	1545	—	—	—	—	292 RI 90
Escort 1300XL 4-door	1297	88	16.0	31.0	2	D	—	—	1495	1290	1100	940	800	292
Cortina Mk3 1600XL 4-door	1593	95	15.1	27.0	3	D	—	—	—	—	1225	1030	875	323
Capri Mk1 1600GT XLR	1599	99	12.8	26.4	4	D	—	—	—	1625	1400	1200	1025	194
Capri MkII 1300	1297	83	21.2	31.0	3	2791	2345	2050	1765	1580	—	—	—	373
Capri MkII 1600GT	1593	102	12.4	27.5	5	3643	3025	2510	2160	1920	—	—	—	342
Consul 2.5L 4-door	2494	109	10.6	22.25	5	D	—	—	1960	1580	1265	995	—	279
Granada 3000GXL auto	2994	108	11.7	21.0	6	D	—	—	2825	2180	1660	1215	—	282
Honda Civic 1200 3-door	1169	86	14.7	34.75	4	2375	1895	1615	1370	1160	—	—	—	362
Accord auto	1600	89	14.7	32	5/6	3265	2865	—	—	—	—	—	—	420
Lada 1200	1198	91	15	33.25	3	1755	1410	1200	1015	860	—	—	—	355
Leyland Mini 850	848	73	26.1	41.0	1	1893	1510	1300	1050	905	770	655	555	340
Mini 1000	998	79	19.7	43.0	1	1964	1700	1465	1170	1005	860	730	620	340 RI 126
Mini Clubman Estate	998	74	28.0	37.0	1	2333	2055	1765	1455	1250	1065	905	770	198 RI 59
1100 Mk2/3 2-door	1098	78	24.9	34.1	1	D	—	—	—	970	830	700	595	166
1300 Mk2/3 4-door	1275	87.5	17.2	36.5	2	D	—	—	—	1075	935	790	670	239
Allegro 1300 super 2-door	1275	86	16.0	34.75	2	2469	2080	1720	1465	1240	1045	—	—	329
Allegro 1500 super	1485	90	14.4	31.25	3	2913	2260	1850	1570	1330	1125	—	—	329 RI 100
Allegro 1500 Estate	1485	90	16.6	34.25	3	2868	2535	2140	1845	—	—	—	—	RI 127
Maxi 1750 Mk2	1748	90	14.6	28.75	3	3047	2575	2035	1730	1465	1225	1025	855	263
Princess 1800HL	1798	96	14.2	29.75	4	3564	2695	2240	1965	—	—	—	—	397
Princess 2200HL	2227	105	12.7	26.5	4	3850	2900	2380	2105	—	—	—	—	RI 129
Marina 1.3 super 4-door	1275	85	18.2	33.0	2	2604	2275	1835	1565	1325	1110	935	775	392
Marina 1.8 super 4-door	1798	96	12.8	31.5	3	3109	2360	1905	1625	1370	1165	975	805	295
MG Midget Mk3	1275	93	14.8	29.1	4	D	—	—	—	1230	1040	880	765	205
MGB Mk2/3	1798	105	11.8	23.9	6	3024	2775	2380	2005	1710	1440	1190	995	243
Jaguar XJ6 4.2	4235	117	10.0	16.75	6/7	8651	—	—	—	3790	2380	1960	1635	227
Jaguar XJ12(L)	5343	136	7.6	13.0	7	10668	—	—	—	4930	3915	2380	—	305
Rover 2200SC	2205	104	12.2	24.0	4	D	3985	3470	2700	2230	—	—	—	324
Rover 3500S	3528	120	9.2	22.5	6	D	—	3565	2875	2330	1735	1390	—	271
Range Rover	3528	101	13.2	18.0	5	8007	—	7550	6090	4655	2915	3145	2550	252
Triumph Toledo 4-door (Dolomite)	1296	83	17.5	31.5	3	2773	—	1780	1525	1310	1125	960	—	335
Triumph 2000 Mk2	1998	95	15.0	26.0	4	D	3690	3195	2600	2155	1490	1240	1015	219
Triumph 2500 TC	2498	102	11.5	27.0	5	D	4210	3540	2925	2230	—	—	—	259 RI 112
Triumph Dolomite 1850 4-door	1854	100	11.4	28.25	4	3772	—	2355	1985	1660	1415	1190	—	288
Triumph Spitfire 1500	1493	97	12.5	35.25	5	2526	2245	1975	1655	—	—	—	—	376
Triumph TR7	1998	108	10.2	28.75	6	3573	2725	2355	—	—	—	—	—	401
Mazda RX3 (Wankel) 4-door	1962	103	11.0	21.25	7	D	—	1390	1185	1010	860	—	—	294
Mazda 1000 2-door	985	98	20.0	33.5	3	1921	1570	1340	1135	960	—	—	—	343
Opel Kadett S Estate 3-door	1196	84	16.7	32.0	4	2739	2345	1935	1635	1380	1060	885	725	338
Opel Ascona 1.9SR	1897	96	12.3	25.5	6	D	—	—	1905	1540	1225	—	—	302
Opel Rekord 4-door	1897	101	12.0	26.0	4	D	—	—	1835	1510	1240	1090	—	287
Peugeot 104 4-door	954	84	17.3	36.5	3	D	—	1625	1390	1185	1010	—	—	325
Peugeot 304	1290	92	16.7	35.5	3	D	—	2015	1715	1450	1220	1010	850	386
Peugeot 504GL	1971	99	13.7	27.75	5	4210	3320	2875	2380	1960	—	—	—	358 RI 140
Peugeot 504 Estate	1971	98.5	13.8	24.5	5	4610	3865	3320	2775	2280	1885	1560	—	275
Reliant Scimitar GTE	2994	118	9.1	21.25	7	6332	5595	4855	3515	2925	2430	2005	1660	303
Renault 4TL	845	74	26.4	39.0	1	2085	1705	1460	—	—	—	—	—	RI 121
Renault 5TL	956	85	19.7	42.0	2	2324	1975	1685	1440	1220	1030	—	—	349
Renault 6TL (1100)	1108	82	17.9	37.75	3	2520	2015	1720	1470	1245	—	—	—	364
Renault 12L	1289	82	18.1	34.5	3	2429	2240	1910	1620	1370	1150	960	795	385
Renault 16TL	1565	93	15.1	29.5	4	3254	2570	2120	1800	1505	1275	1055	875	291
Saab 99 GLE auto	1985	102	13.6	28.5	6	6595	4385	3715	—	—	—	—	—	393
Skoda S110LS 4-door	1107	86	18.0	31.0	3	D	1140	985	845	720	615	520	440	285
Toyota Corolla coupé 2-door	1166	93	14.5	33.1	5	2244	2120	1810	1545	1260	1060	895	745	248
Toyota Corona Mk2 2-door	1968	10												

Water Proof.



In Britain we reckon we get more than our fair share of rain. But it's a drop in the ocean compared with Pirelli's proving ground at Vizzola, Italy.

When we tested the grip of our remarkable new steel plus nylon belted P3 radial we really did it in depth. We practically flooded the track.

Many tyres would have been a complete wash out. But the P3, with its unique construction and tread design, didn't seem to notice the water at all. It lost little of its superb grip.

We tested the P3 for mileage too. Lap after lap of the Vizzola circuit didn't wear the tyre down. (We even went as far as taking a set of P3s for a Marathon Round Britain Drive. After 45,000 miles the tyres still had thousands of miles of life in them.)

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The tough yet highly flexible tyre absorbed most road surface bumps to give a smoother, more relaxing ride. In fact our test drivers were more shaken by the P3's amazing performance than the cobble stones and granite blocks we made them drive over.

At the end of our tests, we had proved that the P3 had a combination of all three major motoring benefits in one tyre. Mileage, grip and comfort.

So we simply called it 'the best tyre for you'. And we think we've got a pretty watertight case for saying it.

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CINTURATO P3

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Of all the brake fluid manufacturers in this country, only Lockheed makes its own brakes.

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So next time you're faced with a choice of brake fluids choose Lockheed.

The one with the thinking behind it.



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NEW SIZE

AA

DRIVE

May-June 1978

the motoring magazine that's so different

40p



PLUS Colt Celeste 1600GS Sunbeam 1.6S Subaru 1600DL Golf GLS
Renault 15GTL Mazda 818 Fiat 127CL Granada 2500GXL and more



TYRES. EXHAUSTS. BATTERIES. WHEN THEY LET YOU DOWN WE WON'T.

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So look for your nearest Standard Motorists' Centre in the Yellow Pages, and make a note of the address and phone number.

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The fastest reacting photochromic lenses in the world

What is a photochromic lens?

A photochromic lens changes almost magically darker or paler according to the brightness of the daylight. The brighter the light, the darker the lens.

How do I benefit?

The lenses compensate for the natural variations in intensity of daylight, protecting your eyes from the strain of constant adjustment as light conditions change, outdoors, indoors or in the car.

What's so special about Reactolite Rapide?

Reactolite Rapide glass is new, and a major technical advance on existing photochromics. It gives wearers the comfort of a glass which now *fades* fast when returned to shade as well as darkening fast to a distinguished neutral grey colour when it is exposed to bright sunlight. It is also the widest ranging photochromic glass in commercial production.

Why is speed important?

Light conditions constantly change—as the sky clears and the sun comes out, or when you go indoors. Ordinary dark or tinted glasses do nothing to compensate for variations in light levels and ordinary photochromic lenses take too long to change. The new Reactolite Rapide glass changes darker or paler more rapidly than any other photochromic glass in the world, giving the wearer increased eye comfort.

How fast is fast?

When exposed to bright sunlight, lenses made from the new Reactolite Rapide glass darken in a mere 30 seconds. And when you move into the shade, the lenses clear halfway in about two minutes—much faster than any other photochromic lens you can buy.

Are they for sunglasses or prescription lenses?

Both! Whether in sunglass or prescription lenses, Reactolite Rapide glass is optically surfaced to ensure that it does not cause distortion of image. Neither does it create those irritating "windscreen patterns" caused by polarising lenses. So if you wear prescription lenses, you need not carry an extra pair of glasses or 'clip-ons'.

What's the secret?

No secret—no gimmick—just extensive development and stringent testing based on world leadership in the photochemistry of light-sensitive silver halide crystals. It's the action of millions of these crystals invisibly embedded in the glass which causes the lenses to react to the light. And because they go on working for ever, the photochromic process never wears out.

Who makes Reactolite Rapide?

Reactolite Rapide glass is a British product. It has been researched, developed and produced by Chance-Pilkington, one of the world's most experienced and respected leaders in the field of fine optical glass.

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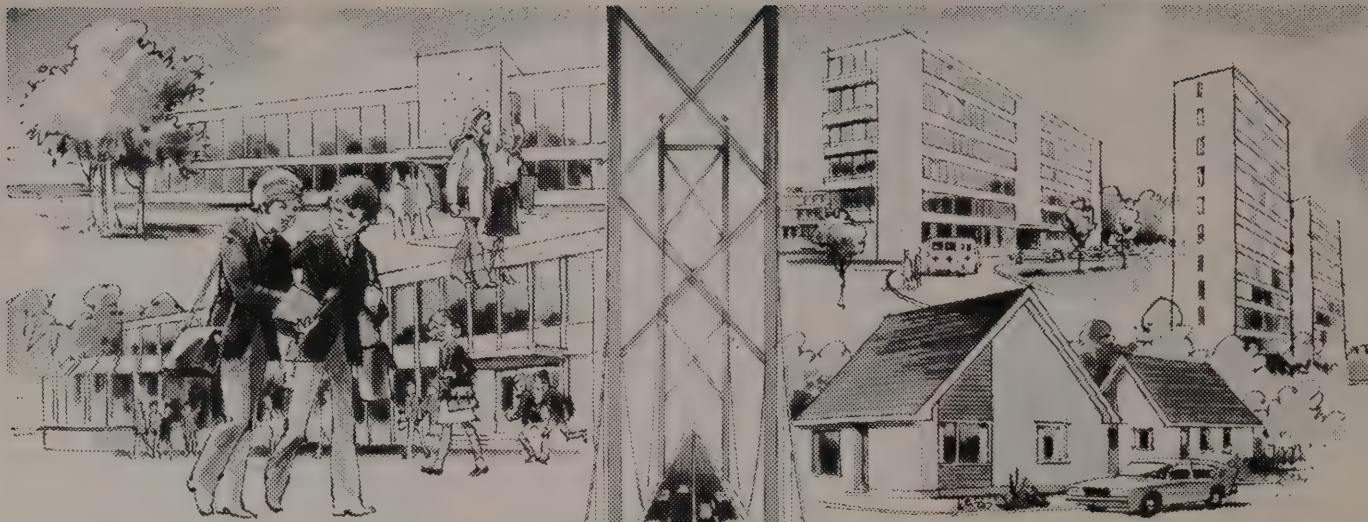
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Clwyd LL17 0LL, North Wales.

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There's a lot more to Fife than just golf courses and the sea.

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At Marconi Space & Defence Systems we think it's time to lay a few old ghosts regarding Fife and convince you of all the benefits.

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Applicants (male or female) write to Ray Morgan at Marconi Space & Defence Systems, FREEPOST, Hillend Industrial Estate, Dunfermline, Fife KY11 5BR. (No stamp required.) Telephone 0383 822131. (Please quote ref 11.)

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Space & Defence
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DRIVE

Editor Anthony Peagam

Cover photograph Ken Randall

May-June 1978 Number 51

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ABC Member of the Audit Bureau of Circulations

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Viewpoint

Bigger and better

IT'S APPROPRIATE that the first words in this second big-DRIVE should be: Thank you.

My thanks to tens of thousands of you, not only for responding so rapidly to the new-look magazine and stripping the newagents' counters in double-quick time, but also for taking up my invitation to write and say how you feel about DRIVE's facelift.

We believed that we were right to throw out the old-style, pocket-size look and start anew ... but we needed you to agree!

I promise—there'll be no complacency. We'll do our utmost to polish DRIVE and to please you. In fact, a few pages farther on, there are already some improvements.

Most important are the changes to the detail-specifications at the end of each set of new-car tests (pages 14-15 and 36-37): they're more comprehensive, easier to understand. There are also changes to the Index of Motoring Costs (page 8) and to

the Secondhand Review (page 50) and the popular Used-car Price Guide (page 64).

Still on cars, the pull-out-and-keep Extra at the heart of this issue is the first of a two-part guide to AA/DRIVE car testing, a helpful complement to our regular, six-car test reports. On page 44, Roy Johnstone takes a long, hard and unappreciative look at car auctions. And, starting page 18, we examine the phenomenon of 'road trauma'.

These two main stories sit among the mass of advice and information that again DRIVE brings you—and, we believe, prove the point of the boast on the front cover.

DRIVE really is a different motoring magazine ... not least because it's never reluctant to explore ALL aspects of your relationship with your car.

Stay with us. Stay in touch with us, and let us know how you relate to DRIVE ...

— the Editor

Monitor

In DRIVE's slipstream

A 'startling report' on car suicides that called for 'urgent study' of the problem, published in *Doctor* magazine at the end of March, will have made familiar reading to all who bought last November's DRIVE. For it was in 'The lonely way to go' that Paulette Pratt's 'startling report' made its first appearance, and further research first suggested:

'If it happens, we should want to do something for potential victims. If we want to do something, we need to understand the phenomenon. And if we want to understand it, we should recognise that, in a motorised society, it could, for many, offer an easy way out ...'

As Paulette Pratt told DRIVE readers, there are recent estimates that one in six American drivers killed in car accidents may in fact have deliberately committed suicide. In Britain, the picture is 'clouded to some extent by the restraints placed on coroners ... Although suicide ceased to be an offence with the Suicide Act of 1961, it has become increasingly difficult to return a suicide verdict at all without cast-iron proof of deliberate intent.'

Remember: you read it first in DRIVE magazine.

Japaned car market

Japan's 13% share of UK car sales is large enough to suggest that motorists are going Oriental through choice rather than necessity. So the danger of pressuring Japan into limiting the shipment of cars to Britain—apart from being an admission of inefficiency—is that the low supply/high demand might well create a black market in Toyotas and so on.

'Last year's voluntary pact didn't last long enough for the cowboys to take advantage,' says Datsun UK. 'But if a formal agreement to check Japanese imports goes on for six months or more, secondhand Japanese cars could end up fetching more than the brand-new list price.'

All square now

Robert Rouse, winner of DRIVE's 1975 Square Wheel Award, is planning to give himself a special anniversary present: three years after his Rover 3500 was chosen as the worst new car of 1974, Rouse is buying ... another new Rover 3500.

His persistence, DRIVE's campaign and the resulting television coverage persuaded British Leyland to offer Rouse a new car in exchange for his 'rogue' Rover plus £250. 'I've had no trouble whatsoever with the replacement,'

says Rouse. 'But I do 18,000–20,000 miles a year, so I think I'm due for a change. I had three good Rovers before that car, and I do like the Rover's engine.'

Rouse's fighting spirit is not wearied by past battles. 'If I have problems, I shall go straight to my dealer, whose responsibilities—thanks to the Square Wheel—are now much clearer. The award made it plain that the responsibility for action over faulty cars does lie with the dealers, and, as a result, Leyland is now said to be working much more closely with its dealers.'

Meanwhile, his trophy—a shiny square wheel on a plinth—is still on display in his North London home ... a hard-earned conversation piece.

24-hour service

The story of Caring Motorist No 2 in DRIVE's nationwide search impressed the judging panel with the considerable time and trouble that one man had spent in helping his neighbour to get her new car roadworthy. And in true Caring Motorist form, Mick Saunders, 32, a salesman of Peterborough, Cambridgeshire, had brushed aside thanks and offers of payment with, 'I was only too glad to help.'

Mick's neighbour, David Scholes, 34, was in hospital when the 1967, secondhand Ford Anglia estate that he had bought for his wife arrived. It came complete with a current MoT, but, on her first drive, Mrs Scholes was far from happy with the car's safety.

'I had no one to turn to,' she told DRIVE. 'Then Mick offered to check the car, and, after several hours' work, he advised me not to drive it as the brakes weren't safe. The next day he collected the necessary parts and spent hours repairing the brakes and other faults he'd found.'

Once on the road, Mrs Scholes discovered that petrol was leaking from the tank, and again Mick came to the rescue, turning-out late at night to siphon off the remaining petrol, ordering a new tank and fitting it before he finally declared that the car was roadworthy again.

Mrs Scholes was overjoyed: 'At last, I was able to use the car to visit my husband in hospital.'

When Mick learned that he'd been nominated for DRIVE's award his modest reaction was: 'I enjoy working on cars.'

Next issue: The cheerful disabled driver who is nearly always driving other people about. More Caring Motorists and their good deeds will follow in subsequent issues, and the list of runners-up

will be published when the sixth and last award-winning motorist is named.

Overdrive

Angela Rippon, who for two years wrote a regular column for *DRIVE*, is back on the national motoring scene again.

Angela, 32, is to host *Top Gear*, a 10-part series on BBC2 television, scheduled to start in July.

After her contributions to *DRIVE*, Angela was an obvious choice for the 25-minute weekly programme. She covers more than 40,000 miles a year commuting between her Devon home and the BBC studios in London; her husband Chris Dare, too, is in the motor business.

As well as presenting the programme, Angela will be out and about making film reports.

Redeeming a bouncing Czech

When the new Skoda Estelle first appeared, last year, it came in for criticism, from the AA among others, for its limited roadholding capabilities and tail-twitching cornering manners—behaviour that was reminiscent of the cars we rushed to buy (and which some of us even learned to love) 20 years ago.

'Potentially dangerous in inexperienced hands' is what the AA said of the new model. But now, in a revised form (introduced in April), the Super Estelle is an altogether-improved car. It sits purposefully and squat on the road, the distinct 'bow-leggedness' of the rear suspension gone. And the limits of safe cornering loads



have been raised by 55% in the wet and 33% in the dry.

There are still irritating design details, such as the indifferent gear change, the swinging needle of the petrol gauge, the all-prevailing exhaust boom at speed and the abrupt, initial surge of the otherwise much smoother and lighter throttle. But it is among the cheapest four/five-seaters, with flexible luggage space.

The AA's chief engineer Marcus Jacobson (above, with a Mk2 Estelle) didn't just criticise the first version—he followed up with proposals for a number of improvements that he put to the Czech motor industry in the UK, in Prague and at the Skoda factory in Mlada Boleslav.

Since the Estelle is produced on highly automated machinery, no major alterations were possible. The driver still has to trim the car's line with stiff steering and feed the wheel back by hand after negotiating a bend. But 13in-diameter wheel rims—instead of 14in—and different, squatter

tyres that give the same rolling radius with better steering control and less-sensitivity to side-winds, have improved matters. In addition, shock absorbers and springs have been re-designed to reduce the bouncy ride and to modify the original handling.

Altogether, more than 30 modifications have been incorporated, including changes to accelerator and brake controls. Result—a still undistinguished performer, but a much safer and more comfortable proposition.

Rare gas

If you think service and personal attention are in short supply on garage forecourts these days, it's not your imagination: according to the Motor Agents Association, the petrol-tanker drivers' dispute in February cut sales and cashflow so severely that 14,000 part-time garage jobs—mainly at small filling stations—were axed.

There is a real risk, too, of motorists discovering that petrol is increasingly difficult to find in remote areas. Shell, which lost £32million in 1977, is planning to terminate its contracts with 1500 'uneconomic' sites over the next 10 years, and that could well mean the closure of most of them.

And the drought could be even more widespread: one small chain of London filling stations warns that there is 'every possibility of bankruptcies now that major oil companies are forcing operators to accept a level of profitability less than half of that thought necessary by the government in 1975'. This warning is reinforced by recently published

AUTOMOBILE ASSOCIATION

Annual General Meeting 1978

Notice is hereby given that the Annual General Meeting of the Automobile Association will be held at the Savoy Hotel (Victoria Embankment entrance), London, on 24 May 1978 at 10.45am, to receive the Report of the Committee, to adopt the Accounts and Balance Sheet for the year ended 31 December 1977, to elect members of the Committee, to elect and appoint Auditors and to deal with any other business which the Meeting is competent to transact.

Dated 4 April 1978

By Order of the Committee of the Association

W Lynch, Secretary, Fanum House, Basingstoke, Hants RG21 2EA.

The Report and Accounts are available to members on application to the Secretary.

figures which reveal that more than 1000 sites stopped selling petrol in 1977—a decline of 3% over the year.

Doing the ton for an MoT

More than two years ago, *DRIVE* predicted that, with many of the 17,000 garage MoT testing stations dragging their feet in ordering the new equipment required by the Environment Department, a large number would find that they simply could not meet the June 1979 target deadline.

Now, with 12 months to go, only 1500—that's fewer than one in 10—have the approved hardware. And another 2500 have—despite installing equipment—failed to win the DoT's blessing.

The Motor Agents Association, which represents a proportion of the garage trade, blames its members' reluctance to get cracking on 'economics' . . . and warns that, in some areas, motorists may have to drive more than 100 miles to an MoT test centre.

Whatever the reason, this state of affairs is clearly not in the best interests of safety. And that, after all, is what the MoT is supposed to be about.

Mobile homes

The affluent South-east of England no longer holds the monopoly of Britain's two-car families, for the rural areas of East Anglia and the South-west are, according to a Department of Transport survey, catching up.

Of 3½million households in the South-east (excluding London), 49% own one car and 17% two or more cars; among the million or so East Anglian households, 54% own one car and 12% two; while in the West Country, more than half of the 1½million families own one car and 14% run two.

The survey puts these three regions neck and neck, with 66% of each population owning cars. Bottom of the poll come Scots: out of 1.8million households, a mere 7% admit to each possessing



INSURANCE

Extravagant claims

THE SMALL company car park was full when machine-minder David Shaw and his wife arrived for the firm's dinner and dance, but he had no worries about parking his 1972 Triumph saloon in a nearby unlit sidestreet. With about 20 other cars there, he seemed to be in good company.

As he was only 100yd from the entrance, he decided to save himself the cost of a cloakroom ticket and leave his coat in the car. After all, it was too dark for anyone to see into the car, and he was always

very careful to lock all the doors.

But at 1am that same night, Shaw was still in good company—standing in a queue at the local police station, waiting to make a statement. A thief, who was systematic if not very subtle, had gone down the whole line of parked cars using what police describe as a blunt instrument to 'open' the car windows. His not inconsiderable haul included Shaw's sheepskin coat, bought in the January sales for £75.

Shaw's only consolation was that at least he could look forward to compensation from his car insurance policy. Every comprehensive policy provided cover for the loss of personal effects, he knew. And, sure enough, his policy promised cover up to £100.

However, when he checked with his broker, he was given the unpleasant news: 'Forget the claim and put this one down to experience. You will lose your no-claims discount if you make a claim, and that would certainly be worse than standing the loss yourself.'

It was good advice, and AA motor insurance manager Mike

Saunders agrees: 'In most similar instances, it just isn't worth claiming. Of course, it isn't possible to generalise—every motorist will have to do his own sums—but it's a simple question of what your no-claims discount is worth against the value of the goods you've lost.'

'Claim, and it could mean a drop in your discount from 60% to 40% in the first year. And it could take four years to work your way back up to 60% again.'

'Most insurance companies provide £50-£100 cover for vehicle contents. For some people, this isn't enough, so the limit can be increased by payment of an additional premium—to cover, for example, high-value stereo equipment. Or you can cover your belongings in your car—including them in your All Rights household policy.'

'With an All Rights policy, the cost will depend on where you live and how valuable your possessions are; but cover will probably cost about 2% of the value.'

'The car insurers' attitude is that their main function is to insure a car. Limited goods protection is simply a bonus.'

two cars and only 39% have one in the family.

A severe decline in public transport is one reason given for the rapid increase in the number of two-car families in the rural eastern and south-eastern counties. Bus services, particularly in East Anglia, have been cut to the minimum and in some cases scrapped altogether, leaving husbands and wives with the option of going independent—or not going at all.

Misguided

If you ever consider buying or selling a car at an auction, but know nothing about either, you may be tempted to reply to a small-ad that appears in newspapers. It offers an 'auction guide' for £1 from Trade Guide, 19 The Palgrave House, Cypress Avenue, Whitton, Middx.

For that, you get 8½ pages (measuring 6in by 4in) of 'car auction procedure' in large type, a further 27½-page listing of 65 auctions, and six blank pages for your 'notes'.

The information on procedure can be obtained free, in better-produced pamphlets, direct from auctions, while the number of sales itemised is less than a quarter of those known to be operating. In short, the publication appears to be as much of a bad buy as some auction 'bargains' themselves.

DRIVE brings you, for 60p less, the *real* lowdown on auctions on pages 44-48—and much, much more besides!

Taxing problems

Now that the Driver and Vehicle Licensing Centre in Swansea has at last got its computer up to date, the Transport Department says that it is all set to declare war on the £50million-worth of licence evaders exposed by DRIVE (September–October 1977).

But although Swansea is able to boast that it finally has the details of *all* vehicles on its central register, it still has a long way to go before it can bring the dodgers to book. The problem is that the law which demands that any

change of ownership is declared by both the vendor and the buyer is frequently ignored, while many shady, backstreet deals involve false paperwork, or even no documents at all.

With only 530 enforcement officers to unravel these and a variety of other complications, the DoT has an uphill job. Indeed, the chief prosecutor for one large county has admitted that, even in cases of outdated licences, the odds could be as high as four-to-one against legal proceedings being taken. Nor is there much chance of the police helping to track down the dodgers, for, like the Department's enforcement division, the police force is undermanned.

Just what action the DoT has in mind will not be revealed until it has 'refined and reconciled' the results of a recent check of unlicensed vehicles in the Swansea computer, and on-the-road surveys at 130 locations throughout the country.

Testers tested

The Transport Department has given its only car inspection station a rap on the knuckles following DRIVE's investigation into the inconsistencies of MoT-testing (January–February issue).

A written question in the House of Commons from Andrew Faulds, Labour MP for Warley East, asked why the Department's own test centre at Hendon, North London, had crossed out the word 'dangerous' in its report of an MoT examination on the potentially lethal vehicle submitted by DRIVE.

John Horam, Under-secretary of State for Transport, replied that the test had revealed an unusually large number of defects, and, as there was insufficient space to record them all in the 'remarks' column of the checklist, some were recorded in the space normally reserved for dangerous items. There was then no room left for the normal use of this space, so the word 'dangerous' was deleted. 'This procedure,' Mr Horam concluded, 'was incorrect, and the

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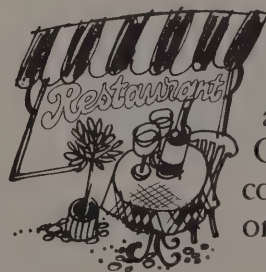
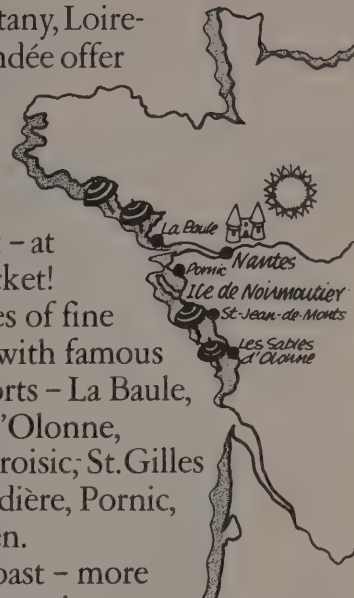
Two hundred miles of fine sandy beaches, dotted with famous resorts and pleasure ports – La Baule, St. Brévin, Les Sables d'Olonne, St. Jean de Monts, Le Croisic; St. Gilles Croix de Vie, L'Herbaudière, Pornic, Pornichet, Le Pouliguen.

And behind the coast – more variety still. A verdant gentle countryside, where fishing, sailing and boating delight the outdoor holidaymaker.

There are 430 camping sites, five holiday villages and areas where camping off-site is permitted. For those who prefer a more solid base there are

400 classified hotels, 600 *gîtes* (rural self-catering properties) and thousands of rooms available in the holiday season. Out of high season there are considerable savings to be made on weekly bookings.

And for the gourmet there is always the delectable cuisine of the region. Its seafood, shellfish, poultry. Its superb wines and the distinctive *pineau*.



For information about holidays in Loire-Atlantique and Vendée please write to:

Dept. DVL, French Government Tourist Office,
178 Piccadilly, London W1V 0AL.

FRANCÉ

Where the accent is on holidays

'Haven't those plugs
had enough sand-blasting yet?'

staff at Hendon have now been instructed accordingly.'

Mr Horam also made the point that the Hendon centre had considered it safe to conduct a brake test on the car with the equipment it had available; yet, in the car's next inspection, London borough of Lambeth engineers refused to allow the vehicle on rolling-road equipment similar to Hendon's, declaring that the car was in too poor a state.

Meanwhile, the Southampton garage that issued the car with a pass certificate has had its MoT authorisation withdrawn by the Transport Department.

USA advertising standards

The STP Corporation has taken out full-page advertisements in American newspapers and journals to publicise its agreement to pay a \$500,000 penalty to the US Treasury over 'deceptive' claims for its products.

The 'corrective' advertisements paid for by the motor-oil additive manufacturer appear in a variety of publications, including the *Washington Post*, *Wall Street Journal*, *Newsweek*, *Business Week*, *Esquire* and *National Geographic*. They state that STP has agreed to a settlement with the Federal Trade Commission as a result of claims for reduced oil consumption through the use of the additive.

STP also admits that the tests on which the claims were based 'cannot be relied on'.

FTC consumer-protection bureau chief Albert Kramer stresses: 'The settlement is important because, in certain cases, it is no longer sufficient for an advertiser simply to stop making deceptive advertising claims and go and sin no more. The company had no basis for claims made in ads during 1976 and 1977 that road tests showed 20% less oil-use with the addition of STP, (because) the tests were flawed.'

Stationary paper

Durham County Council is mounting a campaign to encourage ratepayers to park tidily and safely. More than 15,000 leaflets are being distributed, urging motorists to use car parks and official parking places.

The council warns that, 'Every day, thousands of vehicles parked on main roads and in busy streets are damaged by passing traffic. This means costly repairs, loss of no-claims discounts, and cars off the road.'

'A parking fee can be a small price to pay compared with a repair bill or a fine...'

The leaflet, which places special emphasis on how to park in fog, snow or bad visibility, and outside factories and schools, is entitled *Parking can be costly*,

a conclusion that many of its recipients may already have reached.

Reaction time

What, we asked, was *your* reaction to the new-style DRIVE? And—as always—DRIVE readers were not slow to tell us.

Here are just a few of the comments contained in the hundreds of letters that flooded into the office...

'May I congratulate you on an extremely interesting and beautifully put-together magazine'—from Cyril Tuckwell, Godalming, Surrey.

'It's excellent'—from S E M Kaczmarczyk, London W11.

'Like the new size, bigger and better'—from Andrew Moreton, Northolt, Middx.

'I wish to congratulate you on an excellent format—far superior to the previous size. I would like to place a regular order'—from G B T Maurice, Swansea.

'I like it. It's a big improvement'—from J Van Lent, The Hague, Holland.

'The new format is up to the usual high standard set by earlier issues. Personally, I prefer the smaller format, but as I am mainly concerned with the content I can put up with the larger size! DRIVE continues to be the most informative, impartial and wide-ranging motoring magazine available today'—from D B Hunt, Northampton.

Contrary contraptions

Bob Hardy can vouch for Britain's reputation as a nation of inventors. As the AA's road safety officer, he is bombarded with the feasible, the far-fetched and the fantastic from the public.

'Fog seems to excite the mad professors more than anything else,' says Hardy, 'and last winter's weather prompted some gems.' Ideas included:

Police patrols to drive slowly up motorways, waving their hats to disperse fog

Red smoke cannisters secured to the rear of police vehicles to 'delineate' the motorway

Low-flying helicopters to disperse fog with their rotor blades

Special vehicles fitted with giant fans on the back

Drivers sounding their horns continuously

Plastic half-gallon containers, painted in fluorescent colours and towed on long ropes

Tyre-shredding spikes installed on hatched lane-markings to 'discourage' overtaking.

Fog isn't the only hazard to inspire inventors. Other safety ideas include the use of 2ft-high removable barriers and raised kerbs at school entrances, and the fitting of governors to accelerator pedals to curb speeding.

'We receive hundreds of safety suggestions every year,' says

Hardy, 'and, although some are obviously way-out, we encourage and consider all of them.'

Thirst prizes

Leyland's Mini 1000, which returns the fourth-best unofficial average in the government fuel-consumption tests for new cars, comes second only to the Hillman Imp in a special DRIVE study of petrol costs per mile for all new and secondhand models that feature in the DRIVE Index of Motoring Costs overleaf.

It costs 2.51p per mile in petrol to run a Mini, compared to 2.39p for the Imp. But because of its relatively high servicing/repair cost—1.36p per mile, as against the Imp's 0.84p—the Mini's total cost per mile rises to 5.82p, while the Imp's is only 4.67p.

Another British car costing less than 3p per mile for petrol is the 2.69p Ford Escort 1300, which shares the honours with the smaller Datsuns (2.65p) and the Fiat 500/127 (2.76p). Vauxhall 1800/2300s and Ford Granada/Consuls both top the 4p mark at 4.68p and 4.13p respectively.

French cars as a whole come out top for petrol cost at 2.98p per mile, contributing to a total for all foreign makes of 3.22p per mile—0.11p better than the total for all British makes. The cheapest British manufacturer is Chrysler, which, at 3.32p per mile for petrol, is 0.44p more than Renault, the lowest-cost foreign competitor separately analysed.

Predictably, the bigger the engine the higher the petrol cost per mile, going from 2.51p per mile for cars of 900cc or less to 3.71p for those over 1700cc. But a similar cost-escalation doesn't automatically apply to ageing: 1975-registered cars cost 0.12p less in petrol per mile than those a year younger, and a similar 0.11p bonus is earned by owners of 1970-1971 models, which, at 3.36p per mile cost 0.04p per mile more than cars of 1968 or before.

However, some of the low-fuel-cost cars don't do so well on servicing/repair expenditure. Leyland's Allegro is the cheapest of all cars in the Index to service at 0.39p per mile, closely followed by the Escort 1300 (0.43p). At the top end of the market, the service costs are more in line with petrol expenditure, the dearest being the Vauxhall 1800/2300 range at 3.23p, followed again by the Ford Granada at 2.59p.

Surprisingly, the smaller Simca 1000 is the third-most-expensive, at 2.56p per mile, perhaps because engine size generally makes little difference to servicing costs—1.59p for the smaller-engine group, and only 0.02p more for the larger, with 1301-1500cc cars coming off best at 0.91p.

Among UK makers, Chrysler also has the best servicing costs (0.83p). Leyland, though the most



Ray-Ban
sun glasses

Ray-Ban sunglasses block harmful ultra-violet and infra-red rays as well as visible glare. Based on the shape of the visual field itself, the Ray-Ban lens cannot be bettered for all-round vision and maximum protection. There are various filter lenses and frame styles to suit most sporting and leisure needs.

BAUSCH & LOMB ▼

Available from opticians and leading retail outlets.

CITROËN 

CITROËN GS.

"A car of sophisticated modern design. It is remarkable that it can be produced at such a competitive price."

John Bolster,
AUTOSPORT



CITROËN CX.

"The big Citroën's forte is long, fast journeys but its special, very high geared power steering makes it effortless around town too."

CAR magazine.

THE THINGS THE BRITISH SAY ABOUT THE FRENCH!

Citroën Cars Ltd., Mill Street, Slough SL2 5DE. Tel: Slough 23808.

Check the Yellow Pages for the name and address of your nearest dealer. All Citroën cars have a 12 months unlimited mileage guarantee. Please enquire about our Personal Export, H.M. Forces and Diplomatic schemes and Preferential Finance scheme..

expensive British manufacturer with 1.28p, is beaten by Volvo with 1.29p. In fact, servicing and repair costs of British cars are substantially lower than those of foreign marques. At 1.23p per mile, the all-British figure is 0.47p less, but Japanese models have the lowest servicing/repair costs of all the cars in the Index—only 0.78p per mile—and W German cars the highest—2.62p.

Index indicators

Motorists spent less on their cars in December last year than they have since May 1976, when the monthly cost of running a car was £40.85—just 26p less than December.

This freak result is due to the combination of the normal seasonal fall-off in servicing/repair spending in December and a drop in the mileage covered.

Even so, over the whole of 1977, costs rose by 12%, with the cost per mile increasing from 5.67p in 1976 to 6.51p last year.

The Allegro, once the cheapest car to run, has now dropped to sixth place, at 5.28p per mile. The 4.2p Ford Escort 1300 regains the lead it held briefly in 1977.

Fords are still the cheapest British cars to run, Leylands the most expensive. Since 1976, though, Chrysler has overtaken Vauxhall, and now lies second in the economy stakes.

Road information

Numbers in parentheses refer to maps in the 1978-1979 AA *Members' Handbook*.

BRITAIN

Motorways open M27 Junctions 7-8, 1½ miles (9); M67 Hyde bypass, 3½ miles (36).

Major roads open East Derham bypass, A47, 7 miles (29); Irvine-Dreghorn A71, 1½ miles (43).

OVERSEAS

France Autoroute A8, La Paillon-La Turbie (7.8km) now open. Final 4km to Beausoleil due to open in July.

Germany Roadworks on the Nürnberg-Munich motorway (A9), 50km north of Munich are causing serious delays at peak periods. Alternative routes to Munich should be used.

Italy Most toll motorway charges increased by 12%-35%.








Netherlands A50 motorway now open between A1 east of Apeldoorn and A28 south of Zwolle.

Spain Signs on Madrid M30 motorway changed. Travelling south towards Cordoba or Granada, follow signs 'M30', 'Sud' and 'NIV' and keep to righthand lane. Further 25km of Barcelona-Valencia toll motorway A7 opened between Peniscola and Torreblanca. Final section Torreblanca-Castellon de la Plana due to open June.

Switzerland Charges for car conveyance through St Gotthard and Simplon railway tunnels increased to 30F and 37F.

Yugoslavia Belgrade Nis E5 toll motorway from Belgrade to Umcar completed (42km): 15-20D for private cars. Belgrade Novi Sad, E5: tolls for this single-carriageway motorway, 14-20D for private cars.

MOTERING COSTS: January 1977-December 1977

INDEX Oct 1973 = 100	102	188	212	126	186	113	144	197	192
MONTH-BY-MONTH ANALYSES (all cars) AND ENGINE ANALYSES (post-1968 cars)			Petrol 	Oil 	Servicing repairs 	Accessories 	Insurance 	Other costs 	TOTAL 
January 1977	680	6.74	23.01	0.54	11.96	0.75	3.65	5.91	45.82
February 1977	672	6.40	23.60	0.67	8.97	0.53	3.77	5.46	43.00
March 1977	709	7.31	25.60	0.69	11.84	1.03	3.82	8.85	51.82
April 1977	706	7.07	24.82	1.14	12.90	0.73	3.76	6.55	49.89
May 1977	677	7.39	24.67	1.70	13.40	0.65	2.93	6.67	50.02
June 1977	757	6.89	26.28	0.95	12.78	1.84	3.08	7.21	52.13
July 1977	847	6.65	27.01	1.11	15.33	1.18	3.07	8.66	56.34
August 1977	867	5.79	26.23	0.81	11.01	1.71	3.02	7.39	50.19
September 1977	823	5.75	24.39	0.70	10.86	0.15	4.09	7.13	47.32
October 1977	738	6.60	24.10	1.63	11.08	0.44	3.97	7.49	48.70
November 1977	778	6.04	24.26	1.13	9.04	0.32	4.06	8.17	46.98
December 1977	719	5.72	22.60	0.65	6.64	0.18	4.11	6.92	41.11
TOTAL (for year)	748	6.51	296.57	11.72	135.81	9.51	43.33	86.41	583.32
-900cc	590	5.77	14.82	0.51	9.41	0.74	3.46	5.12	34.05
901-1100cc	680	5.95	19.71	0.81	9.29	0.89	3.61	6.16	40.46
1101-1300cc	783	5.78	24.03	0.71	9.14	0.94	3.71	6.75	45.28
1301-1500cc	744	6.09	25.08	0.75	6.77	0.28	3.81	8.58	45.27
1501-1700cc	990	6.23	34.23	0.76	12.97	1.91	4.24	7.60	61.72
1701cc +	970	6.93	36.03	1.13	15.65	0.74	4.78	8.95	67.28
MODEL-BY-MODEL ANALYSES—post-1968 cars									
Chrysler Imp	637	4.67	15.25	0.72	5.32	0.00	3.16	5.32	29.77
Avenger	779	6.22	26.88	1.24	6.38	2.17	3.57	8.20	48.42
Hunter 1500/1750	787	7.10	29.23	0.81	6.88	0.11	4.07	14.81	55.91
Datsun Cherry/Sunny	799	5.10	21.21	0.21	8.67	0.09	4.33	6.27	40.77
Fiat 128/124	738	6.88	25.15	0.66	13.41	0.00	4.52	7.01	50.75
Fiat 500/127	468	6.69	12.91	0.15	8.09	0.00	3.98	6.15	31.27
Ford Escort 1100/Popular	826	5.52	26.30	0.75	8.18	0.63	3.61	6.17	45.64
Escort 1300	1074	4.20	28.89	0.28	4.65	1.73	3.93	5.63	45.11
Cortina 1300	948	5.14	32.90	0.31	4.94	0.00	3.70	6.89	48.74
Cortina 1600	1060	5.80	36.25	0.91	12.51	0.20	3.90	7.74	61.50
Cortina 2000	1165	5.49	42.27	0.89	8.81	0.33	4.72	6.99	64.00
Capri 1600	993	7.05	34.05	0.96	16.56	6.88	4.75	6.89	70.09
Granada/Consul	1319	8.51	54.40	2.98	34.14	0.56	5.19	14.89	112.16
Leyland Mini	638	5.82	16.02	1.07	8.66	1.63	3.51	6.27	37.17
1100/1300	529	6.98	18.27	1.03	8.10	0.37	3.26	5.87	36.91
Allegro	802	5.28	24.59	2.63	3.14	1.28	3.79	6.89	42.32
Maxi 1500/1750	864	6.09	28.01	0.78	12.54	0.08	3.86	7.38	52.64
Marina 1300	844	6.22	25.46	0.62	12.23	2.53	3.38	8.28	52.50
Marina 1800	810	6.54	29.49	1.95	7.11	0.55	4.11	9.83	53.03
Princess 1800/2200	795	5.93	28.20	1.43	7.77	0.04	4.09	5.63	47.15
Rover 2000/3500	974	7.09	37.63	0.72	18.43	0.00	4.86	7.35	68.99
Simca 1000/1100	627	7.25	19.97	0.13	16.03	0.00	3.41	5.89	45.41
Triumph Toledo/Dolomite	605	6.50	22.63	0.65	4.45	0.98	4.01	6.59	39.31
Triumph 2000/PI	841	6.43	33.36	0.72	7.54	1.02	4.56	6.89	54.10
Vauxhall Viva	702	5.85	21.99	0.76	6.32	1.00	3.51	7.51	41.10
Victor 1800/2300	777	9.56	36.35	1.97	25.07	0.00	3.63	7.27	74.28
VW Beetle	719	5.52	21.55	0.13	7.93	0.36	3.42	6.25	39.64
All Chrysler UK	798	6.05	26.48	0.97	6.60	1.10	3.73	9.39	48.27
Fiat	685	6.78	22.26	0.35	12.17	0.00	4.60	7.10	46.48
Ford	1024	5.74	34.27	0.88	11.01	1.24	4.09	7.28	58.77
Leyland	746	6.40	24.94	1.07	9.53	1.07	3.91	7.22	47.74
Renault	774	5.92	22.30	0.27	11.04	1.46	3.91	6.85	45.83
Simca	700	6.59	21.76	0.28	14.54	0.01	3.56	6.02	46.18
Vauxhall	750	6.27	25.24	0.85	9.20	0.76	3.62	7.36	47.04
Volvo	1017	6.69	36.88	0.79	13.07	5.11	5.66	6.49	68.01
All British	839	6.15	27.90	0.96	10.31	1.07	3.90	7.46	51.60
Foreign	795	6.51	25.64	0.40	13.53	0.58	4.42	7.22	51.80
French	771	5.79	22.96	0.28	10.18	0.83	3.95	6.48	44.68
Italian	747	6.57	24.81	0.44	11.58	0.00	4.78	7.42	49.03
Japanese	839	5.57	26.23	0.31	6.56	0.16	4.66	8.79	46.71
W German	828	7.51	28.36	0.48	1.88	0.27	4.55	6.83	62.13
Average monthly costs (£) excluding depreciation									
Cost per mile (pence)									
Average monthly mileage									

**Buying a cheap foot pump
seemed like a good idea at the time.**



Cheap foot pumps are likely to break down just when you need them most. What more could you expect—their frames are made of low grade metal, the barrels are usually of an inferior plastic, the valves don't always fit well and they're not guaranteed.

Dunlop 'Champion' and 'Major' foot pumps are not cheap, because they're not made cheaply. We accept nothing but high quality steel for the

frames and solid brass for the barrels, and the valve is precision built to give extra long life. So you can expect them to work even in the toughest conditions. And Dunlop guarantees them for one year.

The Dunlop 'Major' Foot Pump has as large a capacity as any foot pump on the market. It's suitable for any inflating job, including truck and van tyres, and a convenient built-in pressure check valve means you can check the pressure without detach-

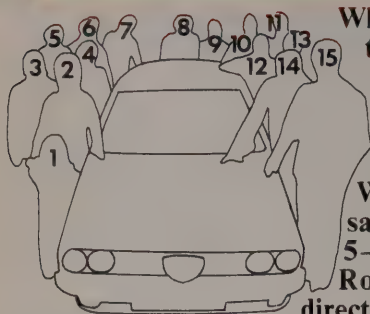
ing the foot pump connector from the tyre valve.

The 'Champion' is slightly smaller, but is every bit as rugged and durable as the 'Major'.

Don't waste your money on a foot pump that will let you down. Ask for the Dunlop 'Champion' or 'Major'.

 **DUNLOP**

*Champion and Major are Dunlop Trademarks.



Who's Who among DRIVE's car testers (our cover picture): 1—five-year-old Sally Phillips, daughter of, 2—Basingstoke housewife Joan Phillips; 3—DRIVE associate editor Roland Weisz; 4—retired insurance salesman James Winchester; 5—DRIVE technical writer Robert Oxford; 6—company director David Everest; 7—freelance

designer Mike Sturley; 8-9-10—Cliff Dive, Lawrence Pearce and Charles Surridge, AA technical research engineers; 11—DRIVE editor Anthony Peagam; 12—AA chief road tester Peter Denayer (more about him in our centre-book supplement); 13—Fred Saunders, AA technical research engineer; 14-15—Sjaan and Tony Colin, owners of the Alfasud 1300ti on long-term test by DRIVE. Ordinary-motorist Everyman panellists, readers, journalists and AA specialists . . . all combine in each and every issue of DRIVE to bring you our unique and authoritative car tests. Starting below: Alfasud, Renault 15GTL and Colt Celeste 1600GS

Alfasud 1300ti

Price £3199 On the road £3249

TOO GOOD BY ALFA?

Italians aren't famed for their sheepishness, but while cars with go-faster stripes and hollow bonnet-bulges abound, it's Alfa Romeo that is building a lean, fast wolf in sheep's clothing. The Alfasud is a compact, modestly-styled saloon that really can whistle along, but only the famous badge and two discreet spoilers betray its get-up-and-go.

After only four years, Britain is the third-biggest importer of this nimble Neapolitan, for it's not only well-suited to sprinting round our B-roads but also sells here at a loss to keep state-owned Alfa's factories working in depressed southern Italy.

DRIVE collared the 1300ti version of a marque that has earned a reputation as the best-handling small saloon around.

On page 27, DRIVE reader Tony Colin submits his identical model to long-term test appraisal.

How it goes

Nestling in the Sud's stubby nose is a super-sweet, horizontally opposed four-cylinder engine that likes a good dose of choke when cold and a gentle jog to warm up. Then, it will drive the front wheels to speeds that'll humble drivers of more mundane 1300s. On the test track, the speedo needle tickled 100mph in a fifth gear that kept the revs happily below the tachometer's red danger area and the useful ignition cut-out.

This fifth is no gutless overdrive, either, for it offers the relaxed driver a loping 30-50mph time of 11.8sec—the Renault, for example, cannot equal that even



in fourth. Dropping down a cog extracts a 9sec burst that, in DRIVE's test trio, was bettered only by the bigger-engined Colt. Despite the rather heavy action of the test car's gear-shift, it can be stirred from standstill to 60mph within 12.5sec to show both these bigger cars a clean pair of Italian heels.

There's been nothing but praise for the Sud's slick gearchange in the past, but, despite useful spring-loading in the third/fourth plane, DRIVE's sample needed sympathetic handling. Around town it occasionally refused to engage first, but the light, smooth clutch action soothed annoyance.

It's city life that brings out the less-pleasant side of this Latin's temperament, for, although the 1300cc engine is more flexible than its early 1200cc cousin, in traffic cut-and-crawl it is still prone to lethargy and tantrums.

In town, it drinks a greedy gallon of 4-star every 25 miles, but that fifth gear gives a cruising 70mph at 32½mpg—just 2mpg less than DRIVE's overall figure. The generous 11gal tank affords a 350-mile range before the low-fuel warning light stays on.

Superlative handling is the Alfasud's *forté*, and the 1300ti convinced DRIVE testers that, on winding country lanes, little else on four wheels could live with it;

Fathers' fancy pieces



in its modest price bracket, this Sud's handling is guaranteed to eradicate any marque.

Cornering at almost silly speeds, the car goes obediently where it's pointed, the good road 'feel' from the ideally weighted rack-and-pinion steering adding to the fun at all times. And the Goodyear fabric radial-ply tyres couldn't be nailed any more firmly to the tarmac: the Alfasud's handling impresses as much now as it did on its debut here four years ago.

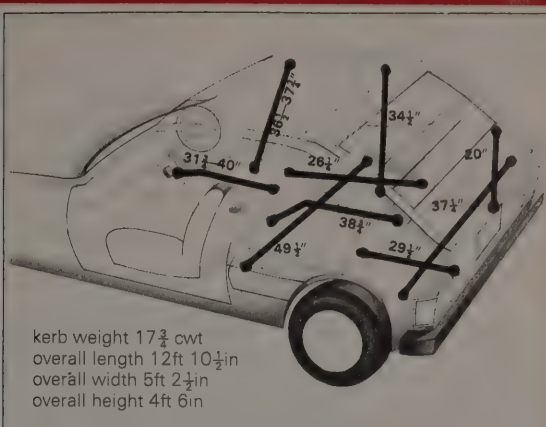
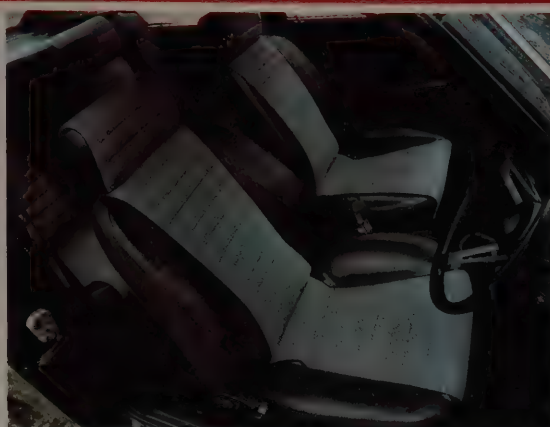
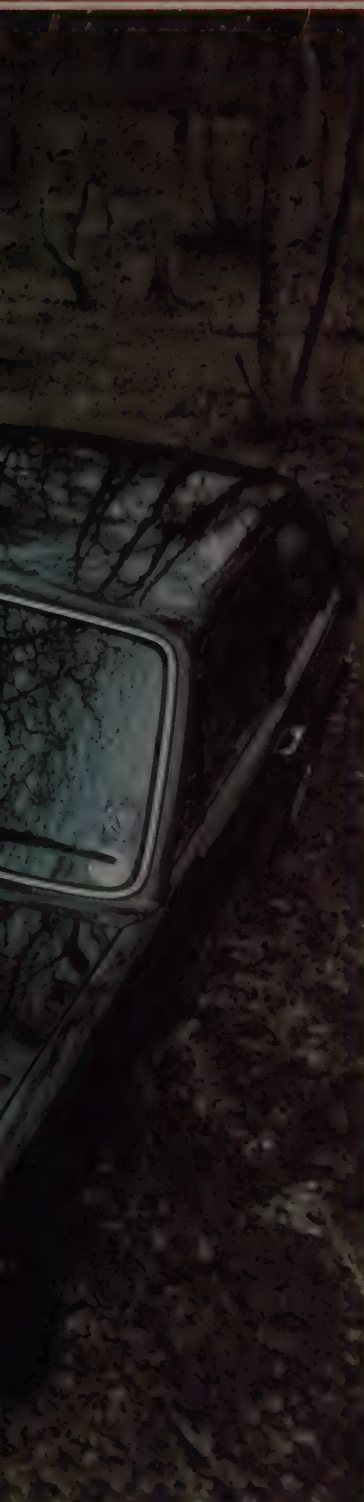
Alfa Romeo achieves better results with its ordinary—and, on paper, uninspired—suspension

design than some competitors manage with complex all-independent systems; an anti-roll bar is necessary only at the front end. The system is wound up taut to please the press-on driver, working at its best when in a hurry and feeling nervy in town.

Whatever the speed, the road surface always makes itself felt, but the engine just hums to a background of almost imperceptible wind noise.

Inside story

Instrumentation is pure Alfa. Large, clear speedometer and



sprout from either side of the steering column. But even this impressive complexity can't provide a single-wipe facility to complement the washer switch, and part of the driver's half of the screen never receives the attention of wipers that are (irritatingly) unconverted to righthand drive.

The interior trim, however, is painfully stark—built down to a price rather than up to standard. The black-and-white plastic makes rivals look like well-furnished, and the exposed shiny screwheads that hold the door trims are plain crude.

Many owners will suffer from the infamous 'Italian driving position', wherein drivers whose limbs are built to the British standard will find their knees beside their ears and their arms overstretched; it takes more than Alfasud's adjustable-rake steering column to bridge the gap. Fore-and-aft seat adjustment is generous for a small car, and the cushion's rise as the seat moves closer can be further increased by an Allen-key . . . but leg angles remain ache-inducing.

The doors on DRIVE's two-door Sud—you *can* have a four-door version, but with less oomph—were enormous, but entry to the back seats is still a job for the agile. Climbing in and out isn't made easier by seat-belt webbing designed to catch passengers by the ankles.

Once in the back, however, there is plenty of leg-stretching room in a hip-hugging seat with pleasant scooped-out armrests in the side panels. Two's cosy but three's definitely a crowd, and some testers found the rear seat squabs too erect—but such criticisms seem carping when the Sud's rear is compared to rivals.

Alfasud buyers are expected to travel tidily—there's no glovebox for valuables, only a shallow shelf under the fascia and a deep parcel shelf at the back. The boot is unlocked by a lever on the outside of the front passenger seat—which may be OK for a lefthand-drive car but needs moving for the UK market.

The boot lid's design is a sacrifice

to economy, held on by two short hinges that stand proud of the bodyline and positively invite rust. Annoyingly, the lid has no stay, so it can easily slam back on to the rear window, the impact being delivered by a narrow section of the rigid boot-lid spoiler. And having the spare wheel under all the luggage in the boot-well could lead to picturesque language in the event of a holiday puncture . . .

Alfa heaters might be great in the land of the grape, but the Sud's crude air-blending system needs fanning to warm toes in the front, while rear passengers just shiver. The fan also robs the output from the swivelling fresh-air

vents, creating stuffiness. Two centrally-placed fascia vents make demisting tricky, with the extreme edges of the windscreen taking far too long to clear; the side windows fog easily and clear reluctantly.

A laminated windscreen and well-positioned fuel tank are welcome safety features, but more money could have been spent on interior padding, particularly round the screen posts and in the headlining. The seat-belt fittings, too, look like an afterthought.

Living together

Home mechanics will never dread opening the Sud's bonnet, for Alfa's east-west engine layout is a model of accessibility, with regular and occasional servicing items equally well-presented (as is the excellent handbook). Major services are stretched to 12,000-mile intervals, with a safety check and lubrication at half-time—useful when there are only 130 Alfa dealers in the UK.

The Alfa-hater's slogan is 'Buy the engine, get the body thrown in free', and rust prevention is still the little Italian's Achilles heel. Mudtraps lurking under the front wheelarches threaten long-term trouble; the pvc sealant is good but only patchily applied; and the box-section interiors are simply left to fend for themselves.

Soon after DRIVE's test car was handed back, Alfa-Romeo announced new attempts to reform its corrosion image: rust-traps will be designed out, danger-spots galvanised and box-sections coated with oil and wax. One of DRIVE's team would add to this list some factory-fitted mudflaps, too, as the Sud's sills and lower panels get peppered by road grit that prematurely ages the paintwork. Others weren't too sure, wondering if the mudflaps' clamps would promote stress and actually cause corrosion.

Cleaning is aided by stainless-steel brightwork and bumpers, but the uncapped wheels make the fussy owner's life difficult, and the cloth upholstery yields up its dirt only to a vacuum cleaner.

Alfa's all-in deal for the 1300ti

Everyman Report

Salesman Glenn Shipton (not pictured on cover) thought the Alfasud was nearly as good as his favourite Colt: 'The pedals were the main problem—far too close together. If I bought one, I'd have to do something about that. Road-holding was very good, and the performance was exceptional.'

Joan Phillips found the controls confusing at first, but then fell in love with the car: 'The gears seemed difficult to manage, but after a few miles I got used to them. It appeared to have more room in it than the Renault, and it certainly encouraged me to drive quickly. I love the way it sits on the road and feels as though it's stuck there. But I didn't like the rear seats at all—you have to sit bolt upright.'

Bank clerk Alan Jones (a stand-in for a sick David Everest) found out how well the Alfasud behaved . . . when he left the ground at an unexpected humpback bridge! 'Nevertheless,' he complained, 'I expected more, just from the name Alfa, I suppose. There was too much plastic. I guess it boils down to cost, but I'd be happy to pay a bit more for a better-trimmed version.'

'I wouldn't have one,' said James Winchester. 'I'd rather have a secondhand "real" Alfa Romeo—the Sud doesn't compare with the real thing. Because of the name, I expected something more.'

tachometer dials are set in front of the driver, while lesser oil-pressure and water-temperature gauges are housed in nascelles angled back at the driver from the centre of the fascia; the one nearest the driver is blank to house an optional electric clock. Warning lights include one that glows until the engine is warmed up to 45°C, advising boy-racers to restrain the revs.

Minor controls pose a challenge to newcomers: all lighting functions, indicators, wash/wipe, horn and heater fan-boost are combined in two stalks that

includes items that are normally added to a new-car bill—number-plates and delivery charges, for example. There are also free service parts for the first 24,000 miles—one reason why the Alfa-sud is the cheapest car in this DRIVE group to own. Its reputation as a rustler has not aggravated depreciation, and demand has kept secondhand prices high. As a Group 5 insurance proposition,

it's average for a fast foreigner. The boy-racers among DRIVE's testers would be happy to own an Alfasud 1300ti... if the new rust-prevention programme stops the rot. City-bound drivers might prefer cars with more stop-start stamina, but, in twisting lanes, a scuttling Sud is the jaded driver's ideal pick-me-up; less-pleasant side-effects quickly pale into insignificance.

Renault 15GTL

Price £3601 On the road £3699



ART OF A FRENCH IMPRESSIONIST

It was launched in the summer of '72 as the Gallic answer to Ford's boy-racer Capri. Based on the Renault 12's running gear, with fastback styling, it promised sports-car performance, the reliability of a proven 1298cc engine and front-wheel drive.

After six years and only minor styling changes, the 15GTL still looks more shapely than the Capri, but, in contrast to Ford's dream machine, the *bourgeoise* didn't flock to the 15. DRIVE's test car certainly gave the impression of going fast even when stationary, but it's just a *trompe d'oeil*: that potent-looking power bulge in the bonnet hides nothing but some of the driver's view.

Yet the 15GTL is no con artist, for DRIVE's road-scarred veterans were seduced by some other very French skills...

How it goes

Remember the baby Renault Dauphine? Its 845cc engine has now matured into the 15GTL's smooth, and usually-tranquil, five-bearing unit. But before DRIVE's testers could renew the acquaintance, they had to spruce up the test car.

Renault's pre-delivery inspection had missed tyres that were all 20% underinflated, noticeably hampering the car's handling. The fastback also hesitated under acceleration and just as the second choke came into play. A tune-up improved the performance, but the flat spot persisted.

Once you've finished playing

cherchez la choke (hidden beside the steering column, down near the footwell) the 15 is an obedient starter and quick to warm, even on a very cold day. Watch that accelerator, though: a small engine in almost 19cwt of car means that economy has to be earned by intelligent pedalling. Short suburban journeys can produce a galling 27mpg, but, for a car that can nudge 95mph when needed, DRIVE's overall consumption of 33½mpg is creditable.

The 15's performance can be brisk if the driver's left arm is strong enough to row it along on the gear lever—another small-engine penalty. But its 30–50mph fourth gear amble of 13.1sec is so lethargic that both the Celeste and the Alfasud beat it by 2sec, even in their high fifth gears. The 15GTL's massive 12gal tank confirms the impression that this

sleek car is happier as a long distance cruiser—and one that makes no more noise at 70mph than at 50mph.

Fortunately the gearbox (lifted from the Renault 12) is light to operate, despite a 'stickiness' that makes reverse gear awkward to engage. The sporting driver who longs to heel-and-toe will be frustrated by clutch and brake pedals that are set considerably higher than the accelerator and have to be pushed down rather than forward. Emergency stops demand a quick-thinking step-up that is not an instinctive reaction.

The clutch also failed the restart test on a 1:3 hill, where the engine also exhibited a marked reluctance to idle happily.

Handling is pure family saloon—safe as houses, but with nil sporting appeal. Weighty though the steering is, it's precise enough to make the 15GTL go exactly where it is pointed—relaxing if you aren't in a rush.

Suspension is independent at the front—McPherson struts and coil springs—while the simple dead axle at the rear is held by a pair of trailing arms. Some attempt is made to control the now-famous Renault body sway by fitting an anti-roll bar at either end, but the 15GTL can still be induced to lean at alarming angles when pressed to its limit.

Everybody's good at something, though, and Renault's *forté* is ride. Thumping at low speeds over lateral ridges and potholes can be forgiven in such a smooth high-speed mover. It's a classic Renault ride, with long-travel springs and dampers to soak up every kind of punishment, and superb front seats to cosset the driver. If coupé comfort is what you crave, look no further.

Unlike the big-engined 17's all-disc brake system, the 15GTL has drums at the rear. For safety's sake, the system is dual-circuit, with a pressure-limiting valve on the back to prevent premature wheel-lock. A best stop of 95% at 60–70lb pedal pressure is reasonable—but only part of the story.

This Renault is a fast fader, and,

after three successive crash stops, DRIVE's tester had to push the pedal-pressure meter right off its 200lb scale—beyond many a right leg—in a desperate attempt to squeeze a reluctant 75% brake efficiency. An Alpine descent could present problems. Fortunately, however, the brakes recover quickly, and most drivers—in Britain, at least—will never experience this unnerving effect.

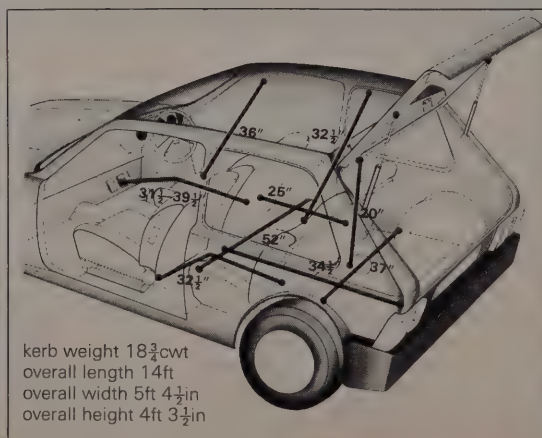
Inside story

The new Renault facia introduced in 1976 is a welcome change. Gallic idiosyncrasies have been removed to leave a layout so functional that the only change DRIVE would like to see is the clock swapped with the fuel gauge so that passengers can tell the time, too. The four circular instruments visible through the top half of the steering wheel, including a battery-condition indicator, tachometer and trip meter, are all easy to read. The speedometer's 140mph calibration is just wishful thinking, and, surprisingly, DRIVE's speed read fractionally slow—a novel fault.

Most of the minor controls are operated by three stalks on the steering column, and it takes some time to memorise the position for lights, washers, wipers, indicators, flasher and the rather feeble horn. Only two rocker switches remain—for the hazard flashers and heated rear screen—and they're positioned confusingly close together.

If you can live with the high-set clutch, brake pedals and non-adjustable steering wheel, the 15GTL offers a good driving position. Despite the fixed-height headrests, DRIVE's test team had no complaints about the front seats. Their wide range of longitudinal adjustment allows most drivers to settle down in comfort, but what catches the imagination are the lateral supports.

Two petal-shaped wings can be wound inwards to gently grip your ribs in a manner that is downright oo-la-la, and two sprung pads on the front edge of the seat squab provide constant and infinitely



kerb weight 18½cwt
overall length 14ft
overall width 5ft 4½in
overall height 4ft 3½in

variable cushioning for the backs of the legs. These versatile seats would flatter an Apollo space capsule—but, to come back to earth, how can Renault justify charging £40.72 for the option of cloth upholstery?

By comparison, rear-seat passengers travel second class, for no amount of clever packing can make more room inside a rigid parcel. The rear seat is unashamedly shaped for two, and entry and exit to the back is not easy, either, despite the huge doors (which also, maddeningly, refuse to stay open on any uphill gradient).

For a fastback, the 15GTL's boot is deep and wide, despite the inclusion of the spare wheel. But Renault still chooses to provide one of the very few hatchbacks that does not boast a fold-down rear seat; curious for the company that popularised the concept of the saloon car-cum-estate.

Heater controls are easily understood and offer a good throughput of hot air. The snag is that it's difficult to shut off the warm air coming through the water-valve mechanism—annoying in July. The centrally placed fresh-air vents give a powerful blast of cold air but their knee-high location makes it difficult to find an ideal position. The heated rear screen is all that's needed for good rear vision as the 15GTL's aerodynamics avoid the need for a rear wash/wiper.

Door releases that look vulnerable to a side impact, plastic hardware over the windscreen's top frame and roof supports that protrude through the padding are safety black marks, although the car is protected from cosmetic rear shunts by an effective plastic guard. The windscreen is not laminated and the fuel tank could have more protection. 'Accordingly, this Renault earns a 'could do better' safety summary, especially for the kind of money that *La Regie* asks.

Living together

Renaults are usually well-protected from the rust bug, and the 15GTL looks no exception; even if it can't outrun the Alfasud and Colt, it promises to outlast them.

The underside and wheelarches receive the standard Renault coating of a flexible pvc sealant under a topcoat of paint. A wax-based spray is spread liberally over the floorpan and fuel tank, though a careful probe revealed some shortcomings around wheelarch lips and there are still some nasty mudtraps near the headlamps. The super-gloss paint on the test car (£31.59 extra) lived up to its name, although defects could be spotted round the edges of the door frames and, again, wheelarch lips. Very few small

mass-production coupés, however, can claim to be as well protected beneath their racy exteriors.

Few cars can be easier to work on, either, and all DRIVE's home mechanics can look forward to rolling up their sleeves. In fact DIYers could almost climb in alongside the engine, so generous is its compartment. Everything is extremely well-placed—unlike some members of the Renault family, whose engines are hidden under the bulkhead.

Would that it were as easy to clean the light-toned carpets and seats: in filthy weather, it's impossible to keep pace.

When it comes to selling used 15GTLs, it seems that dealers are not falling over themselves to buy. The man who bought his coupé 30 months ago will find that it is worth £700 or so less than its new price—while the new retail price has risen by £1324 over the same period. That's £2000 of anybody's money, and at the end of the day a 15GTL owner would have been better off with the Alfasud and only slightly worse with the Colt.

Insurance group is 4.

Although the Renault 15GTL is not the sporty beast it pretends to be, it's not without virtues. It is the most comfortable car in DRIVE's current collection, with front seats as good as anything fitted to cars costing a great deal more. Budget-buyers should begrudge paying £500 more than a Renault 12TS for the same car with less room, but the 15 will probably make a bigger impression on the neighbours. Unfortunately, that's one factor DRIVE hasn't devised a test for—yet.

Everyman Report

His third choice, Shipton commented: 'Like all the test cars in this group, the back seat is hard to reach. I suppose you have to expect that with two-door cars. I didn't like the Renault's seat belts at all—they were difficult to fix and seemed too tight. But my views of the car were probably coloured by the engine's flat-spot.'

This was the car that Jones, too, liked least: 'A comfortable, well-finished car, ideal for a retired couple—but not for me.' Criticisms? 'The steering pulled slightly to the left, and was a bit heavy. Also the pedals seemed too high.'

Joan Phillips liked the Renault. 'I enjoyed sitting in those comfortable front seats. I was surprised there was so little luggage space, but there was lots of legroom in the back.'

Winchester was sold on it. 'I didn't like the step-up from the accelerator to the brake pedal, but I think I would get used to that. Comfort is what made this my favourite.'

Colt Celeste 1600GS

Price £3511 On the road £3640



WHATEVER HAPPENED TO THE HAIRY CELESTE?

It was, of course, Ford that started it—cars to look the part for family motorists with sporting dreams and prosaic responsibilities. And it was inevitable that the Japanese, too, should hop enthusiastically on to the Ford Capri bandwagon.

Mitsubishi hasn't been selling cars in Britain for very long, but, until the arrival of its Colt Celeste a year ago, its fare was rather plain. The spicy Celeste aims to change that. DRIVE's testers, however, found that, if the Capri was a would-be Ford Mustang, a Colt is... well, a Colt.

How it goes

There are three Celestes to choose from, and DRIVE went for the twin-carburettor, five-speed gearbox GS version: delivering 9bhp more than its 1600ST brother and only 8bhp less than the reportedly smoother, more costly 2000GT, it promised a happy middle course.

There was certainly nothing to complain about at starting or low speed, and DRIVE testers can't remember a less-fussed twin-carburettor set-up—too often a temperamental temper-breaker. But the choke must not be pushed in too quickly, and, as it is out of sight, a warning light would help.

Like many Orientals, the Celeste is unruffled in slow-moving traffic, with a smooth clutch and delightful gearchange—again, perhaps the best 5-speeder that DRIVE has come across. The engine is smooth and punchy in fourth gear right down to about 25mph, but, below this, it suddenly degenerates into roughness. Smoothness doesn't mean quietness, though: the throaty growl that always attends brisk cruising or traffic-light starts turns into a more objectionable boom at 70mph.

Ultimate performance is rather disappointing for a sporty 1600—top speed falls well short of the 'ton'. Overdrive fifth achieves 94mph at a modest 5400rpm.

That fifth gear means that 30mph

is easy to better on any long trip, but the Celeste's consumption, though still a respectable average among 1600 coupés, was the heaviest of the cars in this DRIVE group. The Colt's tank is easy to fill, but limited in capacity—9.9 gal—with no warning tell-tale.

Beneath the extrovert styling there lies a conservatively engineered machine with the sort of suspension that Ford has used on the Escort and Capri for years. A leaf-sprung live axle, however primitive, can be made to corner quite well, as Ford has proved, but the Colt's taut ride is firm to the point of harshness. It's always possible that some people masochistically relish such hardship, thinking it adds to a sporty character, but anyone with Lotus or BMW experience will know that cars don't have to be punishing to handle well.

To be fair, though, the Celeste does handle creditably, feeling all of a piece when hurried along twisty roads, and its unfashionable recirculating-ball steering is unusually quick in response. It offers just enough 'feel' of the road to warn the driver when the front tyres are losing their grip, and its big advantage is that variable gearing is possible, making parking manoeuvres easier than most without spoiling normal driving response.

The Celeste stays reasonably stable in strong winds, but the poor bump reaction can cause it to fidget and joggle off course—even on a motorway it feels restless with only the driver aboard. It responds best to bigger bumps and a full load, but never feels unperturbed like the Renault.

There is some wind noise from the door seals, but tyre rumble is well-suppressed.

The brakes suffer from fade when worked hard, and they take time to recover. In normal use they feel fine, but an emergency brings on the servo assistance too strong, making skid-free best stops

an art. The handbrake is both powerful and light.

Inside story

The Celeste is really quite a small car, with a wheelbase that's 4-5in less than the other two in this group . . . and it shows in accommodation: with a stylish low roof-line to add to the problem, rear passengers finish up short of just about everything. They'll need agility to get in and out, and even those of average height notice a lack of headroom. Sensibly, front-seat adjustments are not restricted to create the illusion of rear space.

The Celeste concentrates its attention on the driver, giving him adjustable-rake steering and a nice set of instruments and controls laid out in orderly fashion. Minor gauges include an ammeter, and there's a clock beside the standard radio.

The firm front seats offer reasonable support to thighs and spine, and their adjustable head restraints are good, too, although blocking the rear passengers' view. Some drivers may desire a more-erect seat than the adjustment allows, and it's irritating to have to reset it every time an incoming or outgoing rear passenger tilts it forward.

Perhaps the worst feature from the driving seat is the poor view of the world outside, with restricted rear-quarter vision, an indifferently heated tailgate glass that has no wash/wipe and is quickly blinded in dirty weather, and unexceptional headlamps (especially on dipped beam).

The tailgate has a remote-release trigger beside the driver's seat that operates with ease. The rear platform, however, is shallow—but quite wide and long.

There's a high load sill to clear, and the spare wheel lurks inconveniently beneath the luggage. With the seat backrest flicked forward, the Celeste can take a fair amount of this.

Oddments stowage, apart from throwing things over the back seat, is confined to a glovebox and tray beneath the passenger's side of the fascia. There's a hard,

Everyman Report

'Put a flashing light on the roof and I could play "Starsky and Hutch" all day,' said Shipton of the car he liked best. 'But it took 30 miles' driving to convince me. For the first few miles, the engine sounded very raucous.'

Joan Phillips, on the other hand, switched on the engine and then tried to switch it on again: the tick-over was so smooth and silent she could not hear it. But she remained totally unimpressed: 'Cheap and nasty. It looked tinny and made me feel insecure.'

Jones conceded: 'I enjoyed driving it, but I'm glad I didn't have to sit in the back—too cramped. The rear window seemed too small, too. A Ford Capri is a better bet. The engine noise didn't worry me, but I noticed a gearbox whine in fifth.'

Winchester liked the quiet engine when he started the car, but thought it was rather noisy when he got moving. 'It settled down when it was cruising, though, and I was quite comfortable. But the rear-seat accommodation was very poor indeed.'

unpadded ridge above rear passengers' heads, and the ignition key, lurking at knee-level, looks spiteful. But the seat belts fit well and don't impede rear occupants.

The heater is powerful if you use the quiet slow-fan speed, but ram flow is poor. Ventilation comes through four fascia outlets, those in the centre responding well to adjustment of the fan.

Living together

Colts haven't been around for long enough to have proved themselves mechanically, but all the reassuring signs are there: well-fused electrics, easy under-bonnet access to routine service items, and that feeling of precision to the controls.

Routine servicing at 5000-mile intervals is a bit of a chore, and spares have become more costly in the last year or so. The radiator doesn't have an overflow catchpot, and the fan is speed- not

temperature-controlled. The handbook quotes tuning settings but little else for the DIY types; a small roll of tools is provided.

The plush carpets clean easily, and the rest of the interior is sensibly trimmed—seat-fabric facings are hardwearing and door and wheelarch mouldings wipe clean. The outside, however, is bedecked back and front with awkward plastic mouldings, and cleaning the wheels is nothing short of hard labour.

Underbody, a hard, rubberised sealant has been applied too casually to be of real assurance—there's none at all on the wheelarch lips or bumper stoneguards, and it is missed, or too scanty, on the fuel tank, below the sills and round suspension mounts.

The car is well-painted, though, and some good work has been done by avoiding mudtraps and spraying wax into the doors . . . even if DRIVE engineering sleuths detected no sign of it in other box cavities. The sill rubbing-strips are fixed by clips that will cause rusting. On balance, not too impressive.

What is impressive is Colt's pricing policy—radio, seat belts, delivery and numberplates all included. And, if you want your Celeste without a radio, Mitsubishi will give you a rebate of £58! In real terms, that's level-pegging with the Renault 15GTL.

Depreciation—based on Colt's Galant coupé (the nearest long-running stablemate to the Celeste)—is likely to be heavy: half as much again as a Ford Capri 1600.

DRIVE's testers dubbed the Celeste the 'Starsky and Hutch' car of the group: the Renault was too refined and the Alfased too sophisticated for such a tag, but the Colt growls and swanks its sporting aspirations at everyone.

Its uncompromising ride and tight accommodation reinforces the point, yet, in some ways, it's a bit of a fraud: acceleration is only on a par with most family saloons and its technical specification—apart from the twin carbs and 5-speed box—is conservative.

ALFASUD 1300ti

Front engine: 1286cc/4cyl, twin OHC (belt); one twin-choke carb; 76bhp at 6000rpm
Front drive: 5 gears, 17.5mph/1000rpm
Suspension: front—ind damper struts, anti-roll bar; rear—beam axle, coil springs, watts links, Panhard rod
Steering: rack & pinion, 3½ turns/36½ft circle; 5½J wheels, 165/70SR13 radials
Brakes: servoed discs all round

Parts/repairs (inc VAT)
clutch £41.47 (fitting: 6hr)
exhaust £59.62 (0.6hr)
headlamp unit (no bulb) £13.40 (0.3hr)
front bumper £25.05 (0.4hr)
laminated windscreen £39.42 (0.5hr)
oil filter and points £4.20 (0.3hr)
major service 12,000 miles (3.8hr)

	per year	per mile
Running costs	£591	4.92p
Loss of value	£138	1.2p
Total depreciation	£688	5.73p
Insurance group	5	

RENAULT 15GTL

Front engine: 1289cc/4cyl, OHV (chain); one twin-choke carb; 60bhp at 5500rpm
Front drive: 4 gears, 16.8mph/1000rpm
Suspension: front—ind damper struts, anti-roll bar; rear—dead axle, coil springs, anti-roll bar
Steering: rack & pinion, 3½ turns/33½ft circle; 4½B wheels, 155SR13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £32.07 (fitting: 6.5hr)
exhaust £63 (2.5hr)
headlamp unit (no bulb) £40.60 (0.6hr)
front bumper £28.80 (1.3hr)
laminated windscreen £55.80 (1.5hr)
oil filter and points £3.51 (1.8hr)
major service 10,000 miles (3hr)

	per year	per mile
Running costs	£623	5.19p
Loss of value	£286	2.39p
Total depreciation	£972	8.10p
Insurance group	5	

COLT CELESTE 1600GS

Front engine: 1597cc/4cyl, OHC (chain); two twin-choke carbs; 82bhp/5500rpm
Rear drive: 5 gears, 18.2mph/1000rpm
Suspension: front—ind damper struts, anti-roll bar; rear—live axle with leaf springs, telescopic dampers
Steering: recirculating ball, 4 turns/31½ft circle; 5J wheels, 175/70HR13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £54.54 (fitting: 3.9hr)
exhaust £44.34 (1.8hr)
headlamp unit (inc bulb) £10.39 (0.5hr)
front bumper £31.84 (0.7hr)
laminated windscreen £44.85 (3.1hr)
oil filter and points £6.76 (0.8hr)
major service 5000 miles (2.25hr av)

	per year	per mile
Running costs	£684	5.70p
Loss of value	£184	1.53p
Total depreciation	£992	8.27p
Insurance group	6	

THE RIVALS CLOCK IN

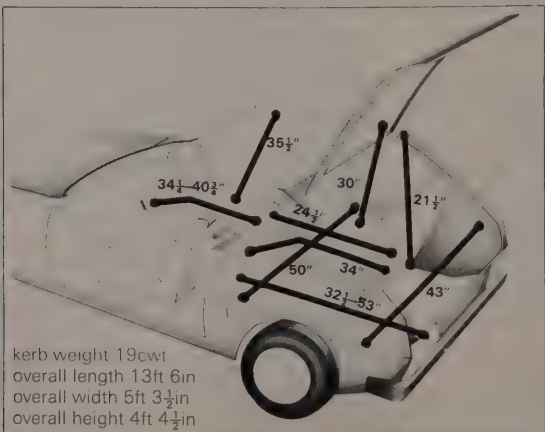
VW Scirocco GLS

Ford Capri 1600GL (MkII)

Honda Accord (auto)

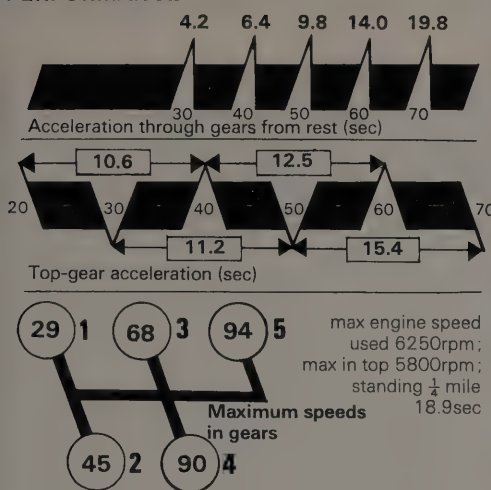
BMW 316

Fiat 128 3P

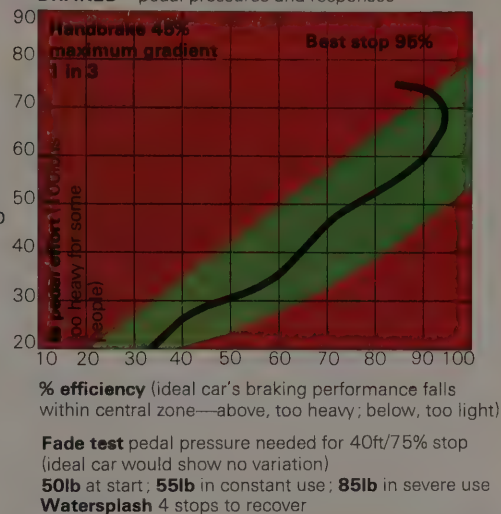


kerb weight 19cwt
overall length 13ft 6in
overall width 5ft 3½in
overall height 4ft 4½in

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane

overall consumption 34 $\frac{1}{2}$ mpg
effective tank range 350 miles/10gal

Normal range of consumption

short-journey suburban	25 $\frac{1}{2}$ mpg
hard driving, heavy traffic	30 $\frac{1}{2}$ mpg
motorway—70mph cruising	32 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	34mpg
quiet rural—40mph cruising	39mpg

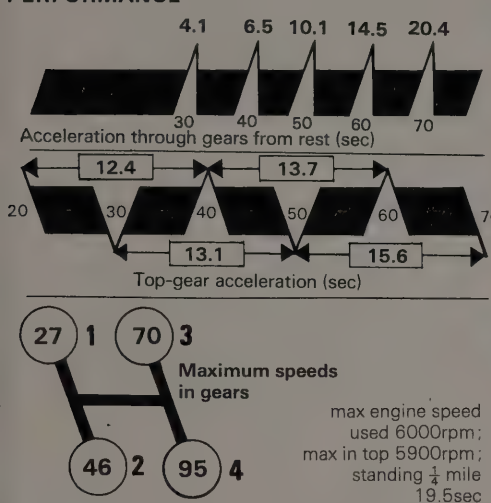
Consumption at steady speeds

30mph	53 $\frac{1}{2}$ mpg
56mph	39 $\frac{1}{2}$ mpg
70mph	32 $\frac{1}{2}$ mpg
max mph	19 $\frac{1}{2}$ mpg

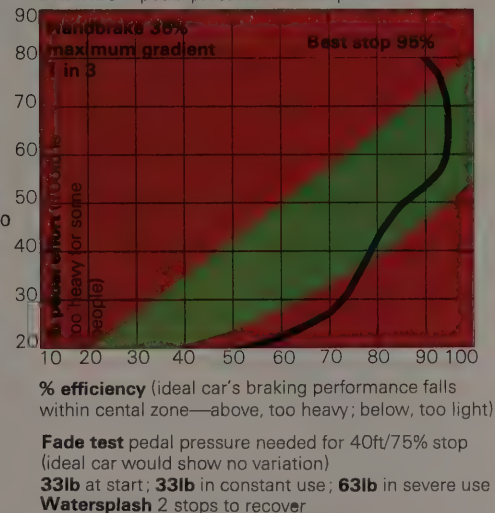
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load-sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane

overall consumption 33 $\frac{1}{2}$ mpg
effective tank range 330 miles/10gal

Normal range of consumption

hard driving, heavy traffic	27mpg
short-journey suburban	27mpg
motorway—70mph cruising	31 $\frac{1}{2}$ mpg
mixed roads—brisk—50mph cruising	34mpg
quiet rural—40mph cruising	39 $\frac{1}{2}$ mpg

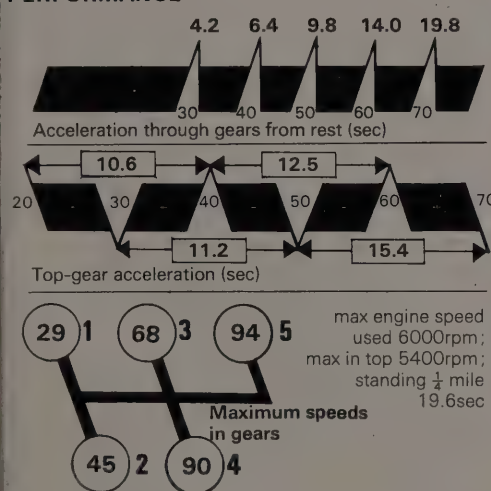
Consumption at steady speeds

30mph	52 $\frac{1}{2}$ mpg
56mph	39mpg
70mph	31 $\frac{1}{2}$ mpg
max mph	20 $\frac{1}{2}$ mpg

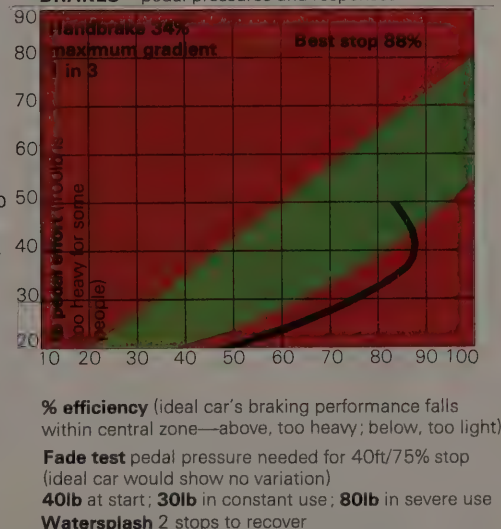
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	No
front belts: effective?	Yes	doors: crashproof?	No
convenient?	No	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load-sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 3-star/95 octane min

overall consumption 30 $\frac{1}{2}$ mpg
effective tank range 275 miles/9gal

Normal range of consumption

hard driving, heavy traffic	24 $\frac{1}{2}$ mpg
short-journey suburban	25 $\frac{1}{2}$ mpg
motorway—70mph cruising	28 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	31mpg
quiet rural—40mph cruising	36 $\frac{1}{2}$ mpg

Consumption at steady speeds— top gear fourth

30mph	50 $\frac{1}{2}$ mpg	45mpg
56mph	35 $\frac{1}{2}$ mpg	32 $\frac{1}{2}$ mpg
70mph	28 $\frac{1}{2}$ mpg	26 $\frac{1}{2}$ mpg
max mph	16 $\frac{1}{2}$ mpg	

SAFETY CHECKS O = factory-filled option

steering: energy absorbing?	No	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load-sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
4395	1588	34 $\frac{1}{2}$	103	11.4	9.5	92/50	12' 8"	41	33	3 $\frac{1}{4}$ /32 $\frac{1}{2}$
3362	1593	29	94	14.4	11.0	92/60	14' 1"	41	36 $\frac{1}{2}$	3 $\frac{1}{2}$ /34 $\frac{1}{2}$
3555	1600	32	89	14.7	6.8(k/d)	100/50	13' 6 $\frac{1}{2}$ "	41 $\frac{1}{4}$	36 $\frac{3}{4}$	3 $\frac{1}{4}$ /33 $\frac{1}{2}$
4249	1573	27 $\frac{1}{2}$	101	12.9	11.3	100/55	14' 3 $\frac{1}{2}$ "	40 $\frac{3}{4}$	39 $\frac{1}{4}$	4/31 $\frac{1}{2}$
3034	1290	35 $\frac{1}{2}$	96	13.4	9.4	96/40	12' 6 $\frac{1}{2}$ "	40 $\frac{3}{4}$	34 $\frac{1}{2}$	3 $\frac{1}{4}$ /32 $\frac{1}{2}$

k/d—kickdown

With the VX2300 GLS, Vauxhall have written a new chapter in The Art of Motoring Relaxation.

Not only are the ribbed, velour seats ergonomically designed to support your back in the manner it deserves.

Continental armrests, front and rear, cosset you further.

Carpeting is in evidence throughout. That includes door-trims and boot.

Generous internal dimensions give you room to stretch. Through-flow ventilation and face-level air vents give you room to breathe.

All essential controls are positioned so that your mind is not distracted from the real business of driving.

Tinted glass all-round and sun visors protect your eyes. Push-button radio with twin speakers is music to your ears.

But perhaps nothing is quite so calming and reassuring as the feel of the 2300 engine.

It will glide you from 50-70 mph in 9.1 seconds.* Power steering will guide you quietly through the longest day.

If you need lessons in relaxation, the VX2300 GLS has much to teach you.

All Vauxhalls are eligible for the low-cost Vauxhall Insurance Plan.

The VX series comprises three saloons, VX1800 £3605, VX2300 £3766, VX4/90 £4474.

Two estates: VX1800 £3901, VX2300 £4062.

Also available is the more luxurious VX2300 GLS saloon (as illustrated) at £4792. Automatic transmission £297 extra. Prices include fitted front seat belts, car tax and VAT at 8%. Delivery and number plates extra. All prices are correct at time of going to press.

Vauxhall Motors Ltd., P.O. Box 3, Luton LU2 0SY. For details of your nearest Dealer ring Luton (0582) 21122. Ext. 4159. For Fleet enquiries Ext. 4465 or 4160.

*Motor Magazine.

A practical alter



VAUXHALL



native to yoga lessons.



I survived! Stories of a m a z i n g escapes from horrendous road accidents are surprisingly commonplace—witness the ones shown here. But, of course, there are also those that end more tragically, with victims suffering for months from so-called 'road trauma'. Interviews, opposite

Left under the bridge Bank clerk Tim Pickord, 23, of Tilehurst, Berkshire, was driving home from his girlfriend's near Reading when 'a car just pulled out of the queue and pushed me over the bridge'. His Citroen 2CV—just two days old—fell 20ft, landing on a concrete bridge base that, but for the long, dry summer of 1976, would have been 10ft under the Thames. 'I just hung there, upside-down, from the seat belt... it all happened so quickly.' His only injury—superficial cuts to his head, needed 14 stitches. The Citroen wasn't so lucky.



Coupé de grâce Austin-Healey Sprite driver Peter Adams, 19, came to on the verge, last June, to find his 16-year-old car upside down in front of him... and right way up behind him. 'I don't remember a thing, not after the back-end slewed across the road on a bend.' He'd collided with a Mini on the Henley—Rotherfield road in Berkshire, and he and his passenger were thrown clear. Total injuries—a 2in head wound and a bruised hip. 'I felt fine,' says lab technician Adams, 'but I simply couldn't believe what happened to the car.'



Hydraulic suspension Mother-of-two Carole Chadwick, 25, was working as a barmaid on Boxing Day 1976, but she stayed dry—until midnight . . . Driving to her parents' home in Adlington, Lancashire, her Austin 1300 skidded and somersaulted into the Leeds-Liverpool Canal. 'By the time I got a door to move, I was virtually breathing water. After that, I just swam to the side . . . I was back at work next day.'



Fuel crisis When 5000gal of crude oil met 4000gal of petrol near Thame, last October . . . between the blazing tankers (the impact of their collision sparked the biggest blaze in Oxfordshire history) sat signwriter Michael Cox, 47, in his Ford Escort van. 'I kicked open the back doors and ran through a 10ft wall of flame, just as my own fuel tank exploded. I'm still having skin grafts to my legs, but I'm lucky to be alive.'



Flat out Ten-year-old Sally Newman got a worm's-eye view of a 40ton earth-mover when it ran across her mother's Renault 4 on a country road near Tintern, Gwent. Mrs Newman and son Richard, 12, managed to scramble clear, but Sally was trapped for three hours in a space just 3ft wide and 18in high. With the truck jacked up, fears were that the road—not the car—would collapse under the weight. Sally, however, chatted happily to rescuers, and escaped with only foot and ankle injuries.

Cliffhanger Joseph Orna's wife doesn't drive him up the wall—she drove him down it. On the way to their cliff-top Isle of Wight home, learner Mrs Orna took their Ford Cortina over a 200ft drop, fortunately hitting an apple tree on a ledge halfway down. 'I didn't have time to say anything,' says Mr Orna, 70. 'We just dropped like a stone.' Presumably he's made up for it since. Mrs Orna was able to climb out through the windscreen with a broken nose and a black eye; Mr Orna, unconscious and with a broken arm, had to be cut out—through the roof—by the fire brigade.



THE CRASH

...and after

ALIVE AND now almost well, racing driver David Purley technically 'died' the day he crashed during practice at Silverstone last year. It was on a grimly appropriate day—13 July—that the throttle jammed on Purley's Formula 1 car. The racer ploughed into a bank at 108mph, and Purley survived only because there was a nurse on hand to give heart massage.

As it was, the injuries were bad enough: multiple fractures to the legs and pelvic girdle, seven broken ribs, damage to the lungs. At Northampton Hospital, reached after a 40-minute dash with police escort, doctors had to perform a tracheotomy (surgical incision into the windpipe) to enable Purley to breathe.

Conscious throughout, he was to spend more than three months in hospital; while his broken body slowly mended, he made the decision never to race again. He says: 'I believe in Fate, and, since this was my second major accident [the first was in 1972 during practice for the Rothmans 50,000 at Brands Hatch], I don't think it would be wise to risk the proverbial third.'

Still only 32, Purley is deeply affected, too, by the memory of what happened to team-mate Roger Williamson, who died during the 1973 Dutch Grand Prix. Williamson's car burst a tyre at 160mph, overturned and was engulfed in flames—a tragedy that brought Purley the George Medal for his part in trying to rescue his friend from the blaze.

'I lost my nerve for about six weeks after that. And, though I got back into a racing car as soon as possible—I knew that if I didn't, my nerve would go altogether—I couldn't seem to make myself get up the speed to win. Instead of pushing round bends, I was slowing down. In the end, it was the crowd that helped me get back my confidence and spurred me on . . .'

Then came the second brush with death. Says Purley: 'This time, as soon as I was out of shock I vowed I'd never race again. I made the decision not so much for myself as for those around me—my parents especially. My mother always hated me racing. I think the accident put about 10 years on them both. I couldn't do it to them again.'

'For weeks, in hospital, I'd wake in the middle of the night on soaked sheets. I used to think I'd been incontinent, but it

was the nightmares that caused me to sweat. Whenever anyone mentioned the accident, I'd tense up, become almost angry. I wanted to shut it out of my mind. But then the pain would start again. In fact the mere word "accident" has become synonymous for me with leg pains . . .'

The drive home from hospital in his father's Rolls-Royce left another painful memory: 'It was hell. We drove at 30mph all the way, but even that movement made me feel sick—several times I had to stop the car.

'Of course, I keep asking myself if I will ever get back on the track again. But physically I won't be the same. I lost so much bone from one leg that it is $1\frac{1}{2}$ in shorter than the other. It's so easy to break a leg, I don't think I dare take such a risk.

'People may say that my refusal to race again is based on fear—and they may be right. But what I have to ask myself is not whether I have the *courage* to go back on the track, but have I the guts to stay away . . . ?'

Away from the track, too, it is hardly surprising that tens of thousands of accident victims experience much the same shock and horror after a crash. People who are haunted by the memory of road trauma—and suffer its effects—for months, maybe years afterwards. And who, like David Purley, find their lives irrevocably, often tragically changed.

In North London, for example, Robert and Jean Warren and their three sons have lived for years in the shadow of two serious accidents that happened in quick succession.

It was an agonising year for the Warrens, 1966: in March, their eldest boy, Robin, then only 17, received serious head injuries when he was knocked off his

motor-scooter on the way home from work; in June, Bob and Jean and four-year-old Raymond were in a car crash that almost cost Jean her life.

'Robin was in intensive care for 10 days; it was a month before he knew us. They told us he'd be a cabbage, but thank God they were wrong. At first, the most difficult part was trying to get over to him what had happened. You see, he had no memory of the accident and, with it being a head injury, there was no pain. He couldn't see why he had to be in hospital at all.

'They warned us what to expect, the after-effects you get with head wounds—aggression, rages, moods, fits of depression. And that's how it was at first. He'd gone out of here a happy-go-lucky youngster that day, and came back a changed personality. You could say the accident robbed him of his teenage years . . .'

Now 29 and able to work as a self-employed central-heating engineer, Robin Warren is 'more settled but withdrawn'. He rarely speaks of his accident, and seems to have come to terms with it in his own rather solitary way. Today it is his mother, Jean, who still suffers from the second tragedy to strike the family that year.

In a sense, the second accident was more sickeningly traumatic. It happened when Bob Warren was driving his wife and youngest son home from a visit to relations in Swindon. They were travelling along the A40, near Stokenchurch in Bucks, when another car, overtaking a fully-laden car transporter on a bend, hit them head-on.

A veteran traffic officer with the Metropolitan police, Bob Warren recalls: 'When we came to a halt, Jean was slumped down in the front passenger well. I was pinned

by the steering-wheel in my chest, so all I could do was to reach over sideways to her to see if she was all right. There was blood everywhere, and I had to keep pressure on the carotid artery in her neck to save her from bleeding to death.'

Jean had a terrible wound: a jagged laceration running from the chin diagonally up across the cheek, along the temple and down behind the ear. Overnight, she was given five pints of blood and a five-hour operation involving more than 250 stitches to the face and head. It was to be the first of five operations carried out over the next two-and-a-half years.

Later, Bob Warren, recovered from his own lesser injuries, would watch in anguish as his wife coped with the double horror of the trauma itself and severe facial disfigurement. Worst of all, before the plastic surgeons could really get to work, was the time when the right side of Jean Warren's face was left nerveless and paralysed.

'You perhaps can't imagine, seeing me now, just what it was like,' she says. 'But I knew I looked a fright. And I could see the effect it had on other people. Some looked away; some stood and stared; some were downright rude.

'Well, it was so bad that, for most of the time, I couldn't go out at all. Or I could only go when Bob came with me for moral support. Even much later, I'd set out for the shops and I'd start to feel so bad—sick, shaking all over—that I'd have to go back home.

'I've never really got back my confidence. I still find it hard mixing with strangers, so to this day we hardly ever go out and we never accept an invitation to go among people where we're not known.

'Travelling is difficult, too. I won't get in



HEALTH

Could you save a life?

WHEN racing driver David Purley crashed last July, his heart stopped. He is alive today because there was a nurse at the scene to massage his heart back to life. Jean Warren owes her life to her policeman husband: he saved her bleeding to death.

Two car crashes, two people brought back from the brink of death . . . But could we *all* do as well in a life-or-death situation?

Could we, in a roadside emergency, meet the nightmare challenge of acting to save a life?

In fact it doesn't require a bookcase full of First Aid books. With skilled help usually only minutes away, First Aid boils down to doing the minimum necessary to reduce risk and maintain life.

The amateur's job is simply to keep the victim alive long enough for the experts to get to work. And at the roadside, as elsewhere, this means three things: keep him breathing, keep his heart beating, and make sure he doesn't bleed to death.

Since suffocation is one of the commonest avoidable causes of death in accidents, the business of maintaining the airway is an important one. If the brain is starved of oxygen for more than about four minutes, there may be permanent damage; much longer, and the person dies.

The unconscious road-accident victim is most at risk, and this is why he should, if possible, be placed in the 'coma' or 'recovery' position—lying on his front with one leg drawn up, the head turned to one side and the mouth free of all foreign objects, including false teeth. Like this, if there is any vomiting or bleeding from

within, he is unlikely to choke to death.

If it isn't possible to move him into this position—if, for example, he is trapped in a car—it is important to see that the mouth is clear and the head tilted back.

It is in cases where breathing has stopped that the 'kiss of life' is a winner, virtually eclipsing all old techniques. And it is simply a question of breathing air into the injured person's lungs.

The normal method is to pinch together the victim's nostrils, then, covering his mouth with your own, to breathe steadily into him, removing your mouth each time to inhale fresh air. The kiss of life should be continued until the victim starts to breathe himself.

Probably the worst dilemma of all for the would-be rescuer is being faced with a cardiac arrest—where the heart, too, has stopped. There is no breathing, no pulse and the pupils are widely dilated . . .

Remembering that speed is essential, the first thing to do is place the victim flat on his back on the ground; then, with your

fist, thump him smartly twice in the centre of the breast-bone. The force of the blow should be enough to compress the chest wall some $1\frac{1}{2}$ in.

If this works, you will be able to feel the carotid pulses next to the windpipe. If not, the last hope is cardiac massage. To do this, place the heel of one hand over the bottom half of the breast-bone, cover it with the other hand and press down, 'pumping' the heart once a second.

It helps if there is someone else on hand to get the breathing going at the same time. If there isn't, the answer is to alternate five seconds of cardiac massage with two good breaths of mouth-to-mouth.

The only other vital First Aid procedure is to stem bleeding from an artery (something else that can kill a victim within minutes) by applying pressure on it farther back from the wound.

For the rest, doctors stress the wisdom of *not doing too much*: not removing the head-injured motorcyclist's helmet; not moving neck or spine injuries.

Above all, don't panic and don't fuss with non-essentials. ●

For everyone who thinks the AA is just a Breakdown Service.

LEGAL SERVICES

The Free Breakdown Service alone is a very good reason for joining the AA. However, it is only a part of the comprehensive range of services we provide.

As a Full AA Member you are entitled to many other benefits which make membership even more worthwhile—for instance AA Legal Services.

Within the British Isles, our Legal Services can offer you the following facilities.

Firstly, if you have a problem to do with motoring law, on which you need advice, you can seek this absolutely free of charge at your AA Regional Office.

Secondly, if you are charged with a motoring offence to be tried in a Magistrates' Court, you can seek representation by AA designated lawyers, within the terms of the 'Free Legal Defence Scheme' and we will pay their fee.

Thirdly, we offer a claims recovery service. If you are involved in an accident on the road, and have a claim against another party, we can initiate negotiations on your behalf, on payment of a registration fee. This, of course, is in addition to giving you free legal advice.

For further details and conditions of these services, please see your current Members'

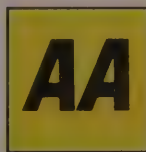


Handbook or contact our Legal Services staff at your Regional Office.

Have you ever stopped to consider how much you would have to pay for these services outside the AA? And remember that Legal Services is just one of the many services we have to offer you.

Why not give some advice to your friends? Suggest that they join the AA or send their names and addresses to:—

The Automobile Association, Membership Sales Development, Freepost BZ47, Basingstoke, Hants RG21 2EA (No stamp is needed).



AUTOMOBILE ASSOCIATION

IT'S GREAT TO FEEL YOU BELONG.

a car with anyone else but Bob at the wheel. Even with him, I dread being in traffic. I feel myself start to tremble if anyone tries to overtake. Odd that, considering I don't remember the actual impact. But I get what you might call flashbacks, and the fear that comes over me is always to do with overtaking...'

Regardless of injury, this kind of fear can persist for years, as Bristol housewife Cindy Maltby knows. Fifteen years ago, still a teenager, she emerged badly shocked but unhurt from a car accident caused when the friend who was driving fell asleep. She says: 'I felt all right until someone who had picked up a hubcap in the road suddenly dropped the thing. The sound of metal on tarmac shook me up no end. Immediately I went to pieces, and remembered nothing more from then on.'

'To this day I suffer a sort of claustrophobia whenever I travel in a car. I sit there, tense the whole time, forever planning what I would do in the event of a crash. Every car that comes near, overtakes us, travels in front or behind is part of my crash plan. I sit and watch the speedometer, the state of the driver, the road conditions.'

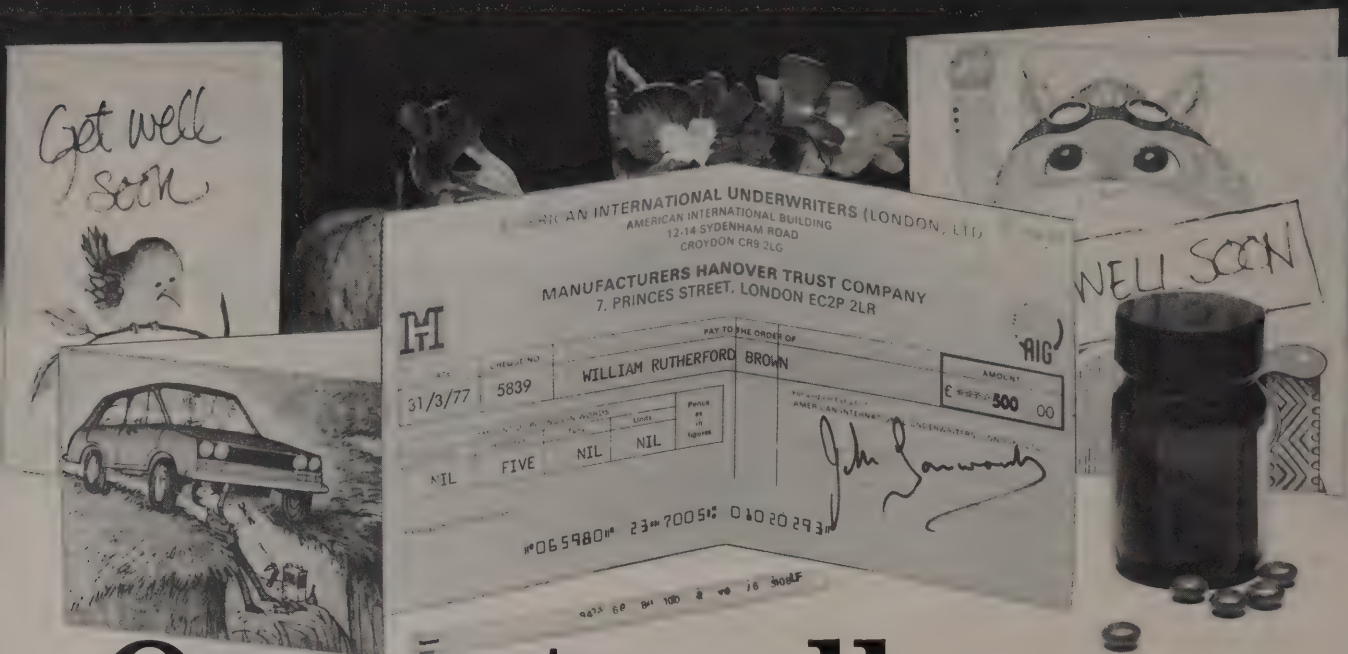
'Before I go in the car with my husband, I make certain he has had enough sleep, enough to eat, not too much to drink... I realise it must madden those around me, but I can't help it.'

Teacher Karin Masson, 41, of Bramley, Kent, injured in a crash with her husband and three children in 1966, also has moments of panic. 'It would be sheer irresponsibility for me to drive,' she says. 'I know that, in an emergency, my reactions are irrational. I simply cannot make the distinction between reality and bad memories.'

For a while, Karin experienced a more bizarre manifestation of the anxiety that often follows road trauma. She broke a knee-cap in the crash, and says: 'About two years afterwards, I found that every time my baby daughter ran off my leg would buckle under me, although by that time there was no physical reason why it should do so. I could dig the garden, fell a tree... but when the baby needed chasing, my leg gave away. I suppose it had something to do with the kids being in the back of the car at the time of the accident, and the concern I felt for them.'

Much more common is the condition known to doctors as 'accident neurosis', and it is this which has blighted the lives of the Harniess family, of Lincoln, ever since their accident two years ago. Like Purley, they met with trouble on the unlucky 13th—a summer Sunday morning when their car, hit from behind, somersaulted several times and ended up facing back the way they had come.

Astonishingly, Terry and Ann Harniess and their two children—Jason, then five, and baby Helen—crawled from the wreckage with nothing more than superficial injuries. Even so, their case is a classic illustration of how people involved in road accidents can be damaged and



Our get-well-soon greeting

It's worth £500 for every month you spend in hospital as a direct result of a car accident. For up to five years. For both you, and any passengers in the car with you. Anywhere in the world.

£500 a month for just 3p a day

With the Motorists' Hospital Cash Insurance, 3p a day buys a lot of peace of mind. Because although the National Health automatically pays for your stay in hospital and the Social Services may contribute to your loss of income, you may still find it difficult to make ends meet. Especially if you have a family.

£500 a month can be a big relief. To them, and to you. It's money that can help compensate you all. And it's payable from the first day you enter hospital. Should you be in hospital for less than a month you will receive payment of £16.66 for each full day you are there. Payments will continue the whole time you are in hospital, up to a maximum of five years.

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The money you receive is yours to do with as you please. You could, for example, use it to pay for private hospital treatment. Take a holiday to aid your recovery. Or put the money towards the travel expenses your family may incur if you happen to be in hospital some distance from your home.

It's tax free too!

The Motorists' Hospital Cash Insurance has been designed to complement other benefits and not negate them. So for the first financial year at least, your £500 a month is tax free. And you may still collect other national health or private insurance benefits to which you are entitled.

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If you're under 65 and driving a private car, you are guaranteed cover, irrespective of any previous driving record. Even if you're over 65 you can still apply. Although you will not be covered personally, any passengers under 65 travelling with you will be. As with all policies of this type there are certain limitations and exemptions. The policy does not cover you for any accidents which are a direct result of any of the following: war and kindred risks, suicide or self-injury, drugs or alcohol above the legal limit, and mental disorders.

Anyone driving your car is covered

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ALL THIS FOR JUST £11.50 A YEAR.

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Few companies have better credentials than the underwriters, the New Hampshire Insurance Company. The company has been an authorised insurer in Great Britain since 1947, for the purpose of transacting general insurance business. Although an American company, assets are maintained in the United Kingdom to meet obligations to policy-holders. The New Hampshire is a member company of the American International Group, operating in 135 countries with assets exceeding £1,300 million.

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
Car registration numbers

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Total Premium £

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demoralised even when no blood is spilt. Ann, for instance, came through with only a bruised right eyebrow, but has since suffered a 'neurotic condition' which, she admits, still threatens to overwhelm her from time to time. 'From the start,' she says, 'I just didn't seem to *want* to cope. I remember I had to take Jason to the doctor's on the Wednesday after the accident, and when I got to the top of the road I found I was trembling from head to foot. I simply had to come home and get the doctor to call. He put me on tablets and said it was reaction. All I know is, I just went to pieces.'

'And so it went on. Sometimes I couldn't go out, at other times I couldn't stay in. I couldn't respond to the children, couldn't sleep at night. When we went on holiday to Yarmouth, later that summer, I couldn't sleep because the caravan we were in was so near the road. I used to lie awake listening to the cars, terrified in case one of them would crash into us . . .

'It was just cars on my mind, the whole time. And, of course, I was getting nightmares, too—more cars. Always red cars like the one that hit us. Always crashing. For a long time I used to look at cars on the road, not seeing them as recognisable shapes but as heaps of cold metal—terrible mechanical things.'

Terry Harniess admits: 'As a family, we suffered mainly through the effect on Ann's nerves. We used to argue when I came home from work, the children couldn't do anything without getting snapped at, shouted at, and she'd often just burst into tears. She was never like that before the accident.'

'It's a terrible thing to say, but it was very hard to carry on at all. I suppose it has upset my nerves a bit, too—I feel tensed up a lot more than I used to—but not like it has affected Ann. She's gradually getting over it, but the scar will always be there.'

Now 38, Ann says: 'I know, and the doctor knows, that if things get *too* bad I can always go back on the tablets. But I can't live the rest of my life on tablets. I don't want to finish up a psychological cabbage—I've got the children to think of.'

'The accident has put a terrible strain on

HELP THEM TO RECOVER

Too often, it seems, road-accident victims are patched up and promptly forgotten. Once the injuries are dealt with, there is no one to help with the problems of psychological adjustment. Here, consultant psychiatrist MICHAEL BROWNE advises on some of the issues facing accident victims and their families during the adjustment period . . .

In the weeks following an accident, the victim is going to need a lot of help and understanding from family and friends. For a start, he or she is going to need to *talk* about what has happened. In fact, some road casualties talk almost incessantly about their accidents—one of the manifestations of the intense anxiety that trauma can provoke.

Although talking is not in itself a cure, it probably helps if the listener is *sensible* and *sympathetic*. The role of family and friends is a supportive one, providing a caring atmosphere in which the victim can regain both physical and psychological strength.

It's important to be kind and concerned but

our marriage. To be honest, if it hadn't been for the children I think I might have ended up in a mental hospital. I often wish life could be like it was before—as if nothing had happened.'

At the other end of the scale, there are rare occasions when even a serious road crash can be turned to *good* account. This is the conclusion that Bernard Wallis is now able to reach after the motorcycle accident that, at 17, cost him a leg.

That was 13 years ago, and Bernard recalls: 'I knew that disabled people have this dread of being different from everybody else, and it was the same in my own case. I was determined to overcome my handicap; for a long while, I refused to register as disabled. I used to worry that I'd lose all my friends, and that girls wouldn't like me any more. And I used to get terrible nightmares—for 10 years I'd wake up in the middle of the night shouting, reliving the accident.'

'The last thing I wanted to do was to get on a motorbike again, but I knew I had to overcome that feeling before it became a phobia. So I did ride again, and I'd advise anyone else who has been in an

not to smother the patient in sympathy. Equally, the harsh, pull-yourself-together kind of pep talk is not much help, because he or she may be suffering from psychological upset that cannot easily be controlled. Verbal bullying may only make the anxiety worse.

Professional help is needed if the anxiety does not begin to lessen with time. Drugs can help, but only if given under the guidance of a GP or psychiatrist. Their value is in damping-down the initial effects of trauma, and, in some cases, preventing the worst symptoms from cropping up at all.

There are a whole range of negative feelings—revenge, bitterness, apathy, self-pity—that are often thrown up by a tragedy of this kind. If these feelings persist, it is important to seek help from a psychiatrist or a trained counsellor.

Finally, where the person concerned is himself a driver, then the sooner he takes the wheel again the better. Of course, this isn't always possible; but generally the best way of restoring confidence is to get him or her fit and well and back on the road.

accident to do the same. What finally put an end to my bike-riding days was when a friend of mine, a policeman, was killed on the road—also on a motorbike. That reawakened all the bad memories . . .

'When I started job-hunting, I decided that I wanted to do something where I could use the experience gained from my own accident to help others. I wanted to join the police force or the ambulance service. But, of course, they wouldn't have me, and so I became a road-safety officer instead. [Wallis is the assistant road-safety officer of the Automobile Association.]

'I'm married, I've recently passed my advanced motorists' test, and I reach and help a large number of road users in the work that I do. It really couldn't have worked out better . . .'

But Bernard Wallis is undoubtedly an exception—and a particularly courageous one at that. For most road victims there are only the negatives: pain, bad dreams, depression, panic reactions and deep scars—both physical and psychological—that will not go away.

This is the real and enduring cost of accident and injury on the roads. ●



WHAT'S NEW

Leading lights

TWO of the lighting gadgets fitted as standard to Aston Martin's 'sci-fi' Lagonda are now available as extras for any family car—an

interior light hold and a headlamp delay unit. The See-Way hold device gives 4-5sec of full interior-light output that gradually dims away after the car doors are closed, giving driver and passengers time to settle themselves, fasten their seat belts ('the light between the clunk and the click') and so on. The makers claim that the £3.70 unit can be fitted in a minute—which must make it one of the simplest electrical DIY installations on the market.

Similarly, anyone who can wire up a fog lamp will be able to fit the See-Way headlamp delay device for £6.35. When it's operating, the headlamps stay on for 25sec after you have switched off and left the car, giving useful light in dark car parks or making

it easier to find your way out of a gloomy garage.

See-Way products are available from accessory shops, or by mail order from Lark Factors Ltd, 107 High Street, Rickmansworth, Hertfordshire.

ON THE RIGHT TRACK

Wheel-alignment usually involves costly and complex garage equipment, and a specially trained, skilled operator. But SPQR—beloved of DIY enthusiasts for its tappet-adjusting tool—has recently come up with 'Trakrite', an entirely novel, simple, compact device that weighs just 3lb. It is aimed at both the garage trade and the do-it-yourself motorist.

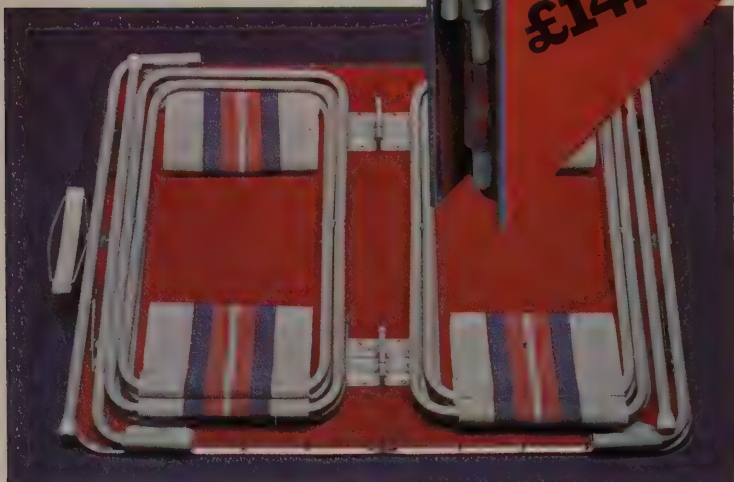
Trakrite consists of two parts—a base plate which remains

stationary on the ground, and a top plate which is free to move on roller bearings. As each front wheel in turn is driven slowly over the plate any side drag due to misalignment moves the top plate. This movement is then recorded on an indicator dial as either toe-in or toe-out.

Having established the degree of misalignment, correct adjustments can then be made to the steering. It costs £16.44, inc VAT.

STAY IN COMMAND

Engine timing, carburettor adjustment, fuel pump leaks, valve and piston-ring efficiency—all can be checked and tested-for with Command's new three-piece tune-up kit. A 'must' for every home mechanic, price £21.50.



Sitting comfortably?

Summer just isn't summer without a picnic, and a picnic isn't a picnic without DRIVE's Special Offer foldaway table and chairs. No matter how good the weather, open-air meals can be a misery if there's nowhere to sit, and sand sandwiches aren't to everyone's taste. Equally practical for camping or afternoon tea in the garden, DRIVE's folding table and four stools solve all the problems. And at only £14.95—nearly £9 below the recommended retail price—they're a bargain that will add spice to any outdoor eating.

The table has a 23in-by-21in, wipe-clean top, and stands 23in high on tubular-steel legs. The four stools are a comfortable 15in high and have attractive canvas seats that are strong enough to cushion the most corpulent camper. And the lot packs into an attaché-case shape, the stools fitting inside the 23in-by-15in box made by the folding table.

Improve your popularity and posture this summer, simply by sending off the coupon below, plus a cheque or PO made payable to the AA.

The offer is available only to readers in Gt Britain and N Ireland—allow three weeks for delivery—and closes 30 September 1978.

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PBM 610



Braking even

IT'S curious—though presumably human nature—to want to know 'What'll she do?' when discussing cars. But have you ever heard a bar-room bore waxing lyrical on how she *stops*? It's all go, and brakes tend to be the driver's forgotten ally—the proverbial good servant. The main problem, of course, is that brakes are out of sight and out of mind—until something goes wrong. This was brought home forcibly to John Lawton, a tree surgeon from Willenhall, Staffordshire, when his father borrowed his car and promptly demolished a road-island bollard because the brakes pulled violently to the right in an emergency stop on a wet road.

Lawton, a self-confessed car duffer, later said that the car had passed its MoT test three months previously and, although the brakes had since begun to pull a bit to one side, he 'compensated' for it when stopping.

Subsequent checks on the car showed that a leak from a front-wheel hydraulic cylinder had saturated the brake linings. Result: a dented car for Lawton, dented pride for his father (who'd had an accident-free driving record for 20 years), a dented bollard (for which the local council had to be reimbursed), a police charge against Lawton for allowing his unroadworthy car to be driven, and another against Lawton Senior for driving a vehicle in an unroadworthy condition. An awful lot of bother.

Brake manufacturers have frightening 'black museums' of wafer-thin brake pads and linings, of discs and drums so scored that they look like LP records, of hydraulic brake pipes replaced by soft plastic tubing, of hydraulic fluid topped up with some very dubious liquids, and of rusty, pin-holed pipes covered by underseal that wouldn't be tolerated in a domestic water system. All these for the want of either simple maintenance or at least taking note of, and acting on, a few early-warning signs.

Problem Car pulls to one side.

Causes Fluid leaking on to linings on side opposite to pull; or seized wheel cylinder on side opposite to pull; or disc pad(s) sticking in calipers.

Cures Renew wheel-cylinder rubbers; free piston or replace

cylinder; remove pads, clean calipers.

Problem Excessive pedal travel.
Cause Brake shoes need adjusting.
Cure Adjust shoes—replace if worn.

Problem Squeal or 'graunching' sound.

Cause Build up of pad/lining dust.
Cure Remove pads, clean calipers. Remove dust, brush out drums.

Problem Spongy pedal.

Cause Air in hydraulic system.
Cure Bleed the system.

Problem Excessive pedal effort.

Causes Seized wheel cylinders; or servo (where fitted) faulty.
Cures Repair or replace wheel cylinders; repair or replace servo.

Problem Tremoring.

Causes Worn discs or out-of-round drums; or damaged pads and/or linings.

Cures Replace discs or drums as necessary; renew pads and/or linings.

Problem Brakes drag or stick on.

Causes Master wheel cylinder seized; or handbrake sticking.
Cures Free if possible or replace unit; clean and lubricate cables, free and lubricate linkage.

Problem Sudden failure.

Causes Broken brake pipe or split hose; faulty master cylinder.
Cures Replace pipe or hose; repair or replace master cylinder. (*Do not use the car before repairing, even if the brakes suddenly 'return'.*)

If you haven't experienced any of these problems, count yourself lucky but don't be complacent. Make the following checks:

Every two weeks Inspect hydraulic fluid level in reservoir and top up if necessary.

Halfway between recommended service intervals Adjust drum brakes if excessive pedal travel is apparent.

Every 5000 miles Check pads and linings for wear, and replace as necessary. Normally, pads should be no less than $\frac{1}{8}$ in (3mm). With riveted linings, there should be at least $\frac{1}{8}$ in (1.5mm) of lining showing above the rivets.

Every 10,000 miles Remove and clean out drums, remove pads and clean calipers, and ensure that there is no fluid running down backplates. Check brake pipes and flexible hoses for chafing and deterioration.

Every 18 months Renew the hydraulic fluid (with the correct grade).

Every 40,000 miles or three years Overhaul all hydraulic cylinders and calipers, renew all flexible hoses and inspect brake pipes for corrosion (renew as necessary).

Thinking Cassettes?

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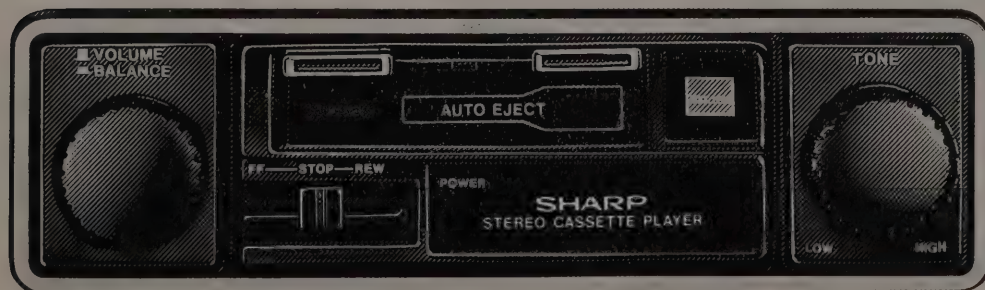
It's true, the big switch in in-car entertainment today is to cassette. As well as radio, you want to be able to call the tune with your favourite recorded sounds just when you want.

Maybe you've been thinking about cassettes too - but combined units can be costly and why ditch a perfectly good radio.

Well now you don't have to. You can keep your own car radio and still get complete in-car entertainment by adding one of the new Sharp Stereo Cassette Players.

With a 7w per channel output, these two new 4 track stereo players from Sharp give you the big sound as well as a choice of top value for money features - features like auto stop/eject, auto reverse, fast forward, manual reverse and anti-rolling mechanism - all at a budget conscious price and backed up by the Sharp name for quality and reliability.

So with your radio and a Sharp Stereo Cassette Player you'll have the best of both worlds for so much less.



RG 2200 4-track, 2 channel stereo cassette. Fast forward/reverse, auto stop/eject. 7w output (RRP £43.25). RG 2700 4-track, 2-channel stereo cassette. auto reverse, fast forward, manual reverse, anti-rolling mechanism, 7w output (RRP £63.25). The Sharp range is available in most leading electrical shops, motor accessory dealers, department stores and quality mail order houses

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Pilot Tony Colin is very proud of his new Alfasud 1300ti—it brings a warm glow to motoring. But how long will the glow last? Tony's Sud is the second car in *DRIVE's* new six-car, long-term tests: for the next 12 months, he'll be bringing it into the AA's research centre for exhaustive two-monthly scrutiny. Here, he reports for Check 1. Overleaf, last-issue new-car buyer David Jones brings back his Ford Cortina



Ready for take-off?

WHEN TONY COLIN collected his new Alfa Romeo Alfasud 1300ti, he could hardly have been more absorbed in its handling than if he had been sitting behind the controls of the jumbo jet that he flies regularly from Heathrow. But even before he had driven it to the AA's workshops, just 24 hours later, he was having minor problems.

A faulty stoplight switch meant that, although Tony, 32, had switched off all the electrics before garaging the car overnight at his Berkshire home, he woke in the morning to find the stoplight glimmering and the battery flat: starting was a job for jump leads. And when he manoeuvred it into the AA's service bay . . . he found himself trapped inside by the driver's door, because of a faulty doorcatch.

Colin paid £2856.67 for the blue Alfasud after Ormsby Cars, of Reading, Berkshire, had given him a 10% reduction for cash. An Endrust anti-corrosion treatment for £65 was included, and a Weathershields sunshine roof—£110.16 more—brought his total outlay to just under £3000. To offset this, he sold his 1975 Citroen Dyane through *Exchange & Mart* for £1100.

The Alfa dealer had drawn Colin's attention to the Sud's badly-fitting driver's door, offering to re-hang it in a day, but Colin said not to bother until the first service. 'I was anxious to get my hands on the car. I'd already given the garage an ultimatum: get me a Sud straight away, or I'll buy another Citroen.'

'I ordered the Alfa last November, for delivery on 1 January. The dealer let me know in mid-December that he couldn't get the colour I wanted—black—but he offered me a blue one. Then I heard that the car had been 'lost' at Dover. Eventually they said I could have it, provided I didn't mind someone *driving* it the 120 miles from Dover. In the end it arrived with only 50 miles on the clock . . .

'I had a test-drive in a Citroen GS, which was comfortable but underpowered. I tried the Alfa, and after two miles I was sold on it; the handling was so good. I also had a drive in a Honda Accord, but it didn't have the same appeal.'

Colin's enthusiasm remained undiminished even after AA research engineer Lawrence Pearce had put the car on the ramp and found that the Endrust treatment had missed the front box sections and the double-skinned areas round the rear suspension pick-up points. 'The underbody protection really ought to be better,' said Pearce.

AA corrosion-expert Fred Saunders was



called in for a second opinion, and soon had Tony Colin peering through an endoscope—a kind of illuminated periscope—at a nasty red blotch in the front offside wing. Like a wine expert, Saunders has the ability to date rust: he told Colin that the Alfa's rust was possibly 2–3 months old.

'There's nothing you can do about it,' said Saunders. 'Spraying rust protection in there will simply accelerate the corrosion outwards. You have a beautiful patch covering about 75mm by 25mm on one

spot alone, and there are others, too . . .

'Rustproofing firms will refuse to treat cars showing evidence of rusting—but they seem reluctant to spend £800 or so on equipment like the endoscope to check areas that the eye can't see.'

'I *expected* rust,' said Colin, philosophically. 'After reading *DRIVE's* report on David Jones' Cortina, last issue, I'd expect rust on any new car.'

Pearce found several niggling faults during his two-hour inspection of the car:

the nearside rear tyre was over-inflated by nearly 30%; two spanners were missing from the advertised toolkit, leaving only a plug spanner, tommy-bar and a double-ended screwdriver; the brake-fluid warning lamp was not working; and the sump had been overfilled. Said Pearce: 'In some cases that can do more harm than under-filling. The crankshaft mixes air with the oil to the point where the bearings can be starved of oil.'

Measuring the quantity of carbon monoxide in the exhaust gases, Pearce also found that the petrol mixture was marginally rich. 'But the engine is running very smoothly, so I'm happy about it.'

He was *not* so happy about the missing plastic cap for a hole drilled by the Endrust operator, or about the severe pitting in the chrome on the driver's-door mirror—the only chrome on the car.

The dark paintwork showed minute abrasions as though the vehicle had been through a carwash three or four times. The paint was chipped in places on the boot lid and, on the roof gutter, it had been badly retouched with a brush and needed some careful attention.

The final check—on the car's state of tune—showed the ignition to be four degrees too advanced, which would cause pinking when the engine worked hard, but have little effect at the car's normal running speeds.

Apart from the rust news, Colin went home a happy man—even if he still had to climb in and out via the passenger's door.

Next day, he returned the car to the garage to have the catch mended—a five-minute job; the faulty brake-fluid warning lamp was traced to a loose connection; and he didn't need to have the stoplight switch mended—Pearce did that in a couple of minutes.

Colin's written guarantee from Endrust would, he felt, cover him if the rust ever

became more of a problem, even though it was there before the proofing treatment was applied.

He planned to run in his car quickly with an 800-mile trip to Holland to visit his wife's family. He would, he admitted, have liked a four-door car, but it wasn't an Alfa option at the time he bought, and Colin wasn't prepared to sacrifice Alfa performance—though easier access *would* have

been particularly welcome this year. Like Mrs Jones, the wife of DRIVE's other long-term test owner, Sjaan Colin is expecting a baby in the spring . . .

'I think it's a daft decision to buy a 2-door car,' said Mrs Colin. 'I fought for a 4-door—it'd be easier for a carrycot or for loading shopping . . .'

'That's not fair,' interrupted Colin. 'You enjoy driving it!' DRIVE tiptoed away.

The Ford story so far



Stuart McPherson

Check 1 DRIVE found some rust on the new Cortina, the front nearside wing had been repaired after a pre-delivery knock, a loose-fitting fuel pipe came adrift, tyre pressures were markedly inaccurate, the boot lock was loose and the boot lid misaligned, the steering wheel wasn't straight, and the front nearside window was a source of wind noise. David Jones was, nonetheless, happy with his new car.

Check 2 Jones' Cortina went to Friary Motors, of Old Windsor, Berkshire, for its first service at 1500 miles, and he presented the garage with his list of faults.

The garage did a good job in the way it tackled the first service, but when AA engineer Chris Warwick put the Cortina under the microscope he noted that the front nearside window was still ill-fitting and a source of noise.

Warwick noted the garage's claim that the glass had been changed. 'I'm surprised that it had a front-door glass in

stock, let alone a tinted one like this,' he commented. 'Certainly, however, it has looked at the winding mechanism: there should be a plastic cover inside the door to protect the trim from moisture, but this one has disappeared.'

'The steering wheel has been realigned, but the boot lock and various bits of body trim strip are still loose, and a screw holding the rear trim is standing proud.'

'The garage has checked the valve clearances, and that's a job that often gets missed.'

Warwick concluded: 'Nothing like a loose petrol pipe this time; in fact, nothing to get worked up about at all.'

Was Jones happy with the service he'd had from the garage? 'Well, it could have been worse,' he said. 'But I got annoyed when I went to collect my car at 5.30pm and found it standing outside the garage, unlocked and with the keys in it. The car could have been there all night.'

But Jones is, on balance, still very happy with his Cortina. 'I've solved the stalling problem that I first complained of: I brake with my left foot and just touch the accelerator with my right.'

Certainly it's effective, but it must go some way to explaining the Ford's 20 mpg that David reckons he averages.

And that window? 'I took it along to a window specialist, but he didn't have much more success than the garage. I guess I'll try myself . . .'



HOTELS Doubles

THE duty manager of one of London's newest hotels could hardly believe his ears: 'My room has been burgled! All my belongings have vanished!' cried the anguished voice on the phone from Room 617.

Within minutes, the manager and the hotel's security officer were confronting a middle-aged Englishman suffering from too

much alcohol and not enough clothes. 'I got back and, look, the room's empty,' he shouted.

True enough, apart from his evening clothes, which lay in a crumpled heap on the floor, the place looked cleaned out.

As it should . . . for the hotel housekeeper's check-list showed that Room 617 was, of course, unoccupied that night. The guest was in the wrong room.

But where was his room? Slowly the truth dawned: it wasn't the wrong room—but the wrong hotel.

It's not an unusual story: today's big, modern hotels are often so alike that it's hard to distinguish between them. Once inside the bedroom, it is possible even to be confused even about the country: in any of a hundred across the world, you could just as easily be in London, Zagreb, San Francisco or Montego Bay.

Yet not all hotel chains design their layout and decor with such conformity. Two of the top American chains, Hilton and

Inter-Continental—between them they own more than 70 hotels in 40 countries—claim to balance cost-cutting standardisation with local individuality.

The Inter-Continental in Bangkok for instance, is modelled on the lines of a pagoda.

The Hiltons of London's Park Lane and Kensington have spared no effort to try and build English motifs into their decor—not always tastefully, perhaps . . .

In the final analysis, of course, what really sets the character of a top-class hotel is its clientele. The coachloads of Arab and Japanese tourists that pack British hotels in summer often bring their own national ambience with them. Sometimes it is rare to hear English spoken, and you'd be forgiven for wondering if they will accept sterling. ROBIN WILLS

The Bridge of Cally Perthshire

(tel Bridge of Cally 231)

This small, black-and-white high-

land lodge nestles in a cleft in the hill close by an historic stone bridge, offering a warm welcome, nine prettily furnished bedrooms, a bar with a log fire, and excellent meals cooked and served by managers Maggie and Jim Boulton. There is salmon- and trout-fishing, hill walking, touring and ski-ing in winter—all of which makes advance booking a wise precaution. Double b&b from about £13.50.

La Fregate

St Peter Port, Guernsey
(tel Guernsey 24624)

High on the hill above the bustling harbour of this colourful, cosmopolitan island town, La Fregate is a lovely house fronted by immaculately kept terraced gardens with low stone walls and splendid views of sea and islands. One of the best restaurants on the island, a sun-drenched terrace and 13 comfortable bedrooms are just some of the amenities. Double b&b from £23.



PROTECTOL WINS APPROVAL

The AA do not award their Seal of Approval without good reason – only two rustproofing companies have it. It has to be earned, the hard way, by meeting their independent and rigorous standards in vehicle rustproofing. These cover materials, method of application, operator expertise, technical competence, equipment, station management and guarantees issued.

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A guarantee covering the Protectol Gold Seal process, and which incorporates straightforward, sensible conditions written in plain English. A guarantee designed to prolong the body life of your car and to enhance its value. A guarantee that is transferable from owner to owner.

There's also a 6 year guarantee for the Protectol Standard process – and all Protectol guarantees offer high standards of protection.

Considering that many new cars are likely to be seriously troubled by rust in three years' time, isn't a Protectol guarantee worth having?

2. Protectol Product Excellence

Protectol is the only vehicle rustproofing company in the UK manufacturing its own products. It has continually led the market in research and development, and in making the breakthrough into second generation rustproofing systems.

In this way, it has not only given high-quality materials and technically advanced processes to the motoring public, but

Protectol came through as 1st time winners of this coveted award and, in the process, gave you another good reason for choosing Protectol, the all-British system that leads the field in rustproofing today.

But, then, Protectol has been winning the approval of thousands of motorists for some time now – and the reasons are not difficult to find.

has also created new standards in integrity of operation.

Would you trust what is probably your second largest personal investment to anything less than Protectol rustproofing?

3. Protectol Proven System

Joh Johanson, Joint Managing Director of Protectol, brought vehicle rustproofing to the UK. Since founding his own company he has polished the processes, techniques and organisation involved, so that today Protectol has a rustproofing system second to none.

This system is backed by experience spanning many years, an extensive knowledge of the market, the enthusiastic support of a network of more than 80 rustproofing stations – and a real awareness of motorists' needs.

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DP/5/78



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MG GT



ROVER 3500



TRIUMPH TR7



FIAT RITMO 1750HL

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down on its test-drive, st the back-up?



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DRIVE's road test team—the professionals and the Everyman panel—turns its attention from the Alfased and its racy competitors and comes down to earth with a bump (but, fortunately, no bent metal) with the altogether more 'domestic' trio of Volkswagen Golf, Sunbeam 1.6S and Subaru 1600DL.

Call it the Continent versus the Orient versus Chrysler's Scottish finest . . . and read on for a verdict. (Car-test reprints are available to AA members)

Volkswagen Golf GLS

Price £3500 On the road £3603

... AND IT'S STILL UP TO SCRATCH

The super-selling Golf has brought Volkswagen precisely what Chrysler expects of the Sunbeam—economic salvation. VW has gradually honed-down the Golf's handicap of unrefined ride and interior finish that marred its 1974 debut, but this range of hatchbacks has consistently outsold the cheaper VW Polo in its home territory.

The bigger hitter in the two-engine Golf team is the potent 1460GLS. It's a versatile performer, equally happy when driving long and fast or when just wedging into holes in cramped city traffic. Some of DRIVE's team were even unhappy to see the test car go home . . .

How it goes

Since we first tested the Volkswagen Golf, in 1975, minor modifications have come thick and fast. Now it's 'All change!' once again underbonnet.

The top model started life three years ago as a 1470cc car, grew to be a 1600cc, and is now back to 1460cc but with a shorter stroke. VW says it has done it to enhance refinement: DRIVE suspects that it also wants the new VW Passat to have the enviable 1600 unit to itself.

But the 1460 is just as smooth and refined a mover as its 1600 predecessor, and, past the legal limit, it probably remains subdued for even longer. This is the sort of car in which you choose your cruising speed without having to dodge noisy boom-periods. And there's no wind noise, either—just a background hum from the tyres to match that of the engine.

Nevertheless, it is when it's being driven fast and furiously that the Golf comes into its own, and DRIVE's testers all emerged from long, fast, cross-country journeys grinning happily.

Although auto-choke starting is immediate, the test car had a nasty carburettor that spoilt its



manners in genteel use. It still stalled sometimes in the warm-up period, despite the complicated air-intake arrangements that VW has fitted to obviate this long-standing Golf problem. Generally, however, this version is more forgiving to clumsy use of controls, and the gearchange is precise and cooperative.

Succumb to the fast-driving temptation and, of course, fuel economy will suffer. In general use, the big engine's fuel economy remains a major Golf attraction: at 34½mpg, it's only 1mpg heavier than the 1100's—itself respectable. Ex-1600 owners will not gain any benefit, however: at motorway speeds, the 1460 is actually 1½mpg thirstier, and other results are almost identical.

Early-Golf owners would be surprised at the improvements in later versions' ride and handling. Unlike the right-first-time Polo, this car prompted second thoughts at the Wolfsburg factory, resulting in a compromise that endows the Golf with taut, effortless handling that feels much less tail-twitchy as the limits of roadholding are reached.

The light steering has more 'feel' than most current VWs, using a special suspension geometry that keeps the car running straight and true if one wheel skids or deflates. The Golf is now a good second-best to the Polo on hectic corners, yet gives a more absorbent ride.

Admittedly, the suspension feels harsher when the car is fully laden, and it will thud over the occasional pothole (when interior fittings tend to fret in sympathy). Yet the average load taken over the average British road produces a level of comfort that is almost

as demure as a French car's, but without the Gallic roll.

To the novice Golfer, the brake pedal's long travel is unnerving, but familiarity reassures, and the servo on the front-disc/rear-drum set-up gives good response.

Inside story

For some strange reason, VW has compromised both space and seat comfort in the GLS. It may have superior fabric facings, but the rear passengers in particular complain about poor kneeroom and lack of back support that would

be unthinkable in the L versions. The front seats are set higher, too, restricting driver legroom.

The GLS looks plush but feels cramped. The driver's seat offers no more support than the three-door LS, and although instrumentation and driver aids are more generous, it seems pointless to pay £300 extra for less fundamental comfort—even if it is easier to get into the back.

The things that *are* worth having are the GLS's halogen headlamps, illuminated heater controls, a centre console with a dead-

Close encounters of three kinds



Colin Curwood

Power to the people



FEBRUARY is muck-spreading time in East Anglia. Heavily-laden trailers lurch out of farm gates, spattering the undulating, winding roads.

The front wheels of the Vauxhall Cavalier 1300 let the driver know that 40mph on this bend is pushing it a bit, with the roads so wet and greasy. But the driver's touch is sure. Dozens of times every year he pushes cars through this same bend at that same speed—part of what he calls his 'brisk country-driving mode'.

It's on bends such as this that he finds out the difference between the Cavalier and its market rivals. This is where Peter Denayer, chief road-tester of the AA and DRIVE, earns his living...

If your idea of a car-tester is a balding, middle-aged, would-be racing driver, screaming around on two wheels of other people's cars and waffling on about 'terminal roll' or 'oversteer' into lunchtime pints, you'll be disappointed by Denayer: he is a quiet, serious, 39-year-old family man with a wife and two young daughters, and his occupation probably surprises many who meet him. That's Denayer on the left, taking a Renault 30TS around the high-speed banking on the test track. (Note, incidentally the difference between Denayer's 'true' speedo and the car's.)

Like the man who does the job, road-testing is a serious business—but not without its wilder moments, which perhaps explains a few of the grey hairs among the black ones.

Denayer finds it hard to pin down exactly what makes a road-tester. 'I suppose it's a mixture of three things: driving ability, of course, a steady nerve... and a bit of cowardice as well,' he says. Colleagues point out that he also has extraordinary recall of information and impressions of other cars' behaviour in previous tests, and his pragmatic approach comes in handy, too.

'There's no such thing as an all-out 'bad car,' says

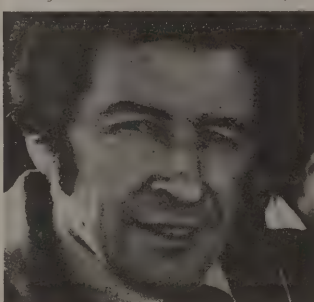
Denayer. 'It's just a question of compatibility: the right car for that person.' And Denayer and the rest of the AA/DRIVE test team—drivers Richard Taylor and Lawrence Pearce, the laboratory staff and the technical department—aim to help a driver decide exactly what is the right car for him.

They aren't interested in reporting on their favourites; detachment is all-important. In Denayer's home garage is a VW Golf 1600 and a Renault 5—the cars he has chosen to fit the needs of himself and his family. But he won't try to 'sell' you either. As he says, *your needs aren't his*.

Doug Houston, the AA's head of engineering research, points out another virtue that a test-driver must have: 'He must be able to drive *badly*.' Which means deliberately forgetting all he ever knew about safe, sensible, sympathetic driving, and using a car in the way that would horrify a skilled driver with an engineering background.

Denayer says that a little old lady going to church in Harrogate is capable, in five

Denayer as car tester—'driving ability, a steady nerve . . . and a bit of cowardice as well,' he says.



minutes, of breaking something that a research engineer hasn't been able to break in five months. So he's pleased to see the Everyman panel in action in DRIVE's tests: 'It's surprising what professional testers can actually miss. Everyday drivers can often highlight a great number of faults.'

In fact, road-testing is very much a family affair among the Denayers, with wife Gill, mum-in-law, daughters Judith and Jennie, sheepdog Jepp, and any neighbours who happen to drop in, all being given a chance to contribute. It was Gill's mum who sat in the then-new Rover 2000 and announced, 'Very nice, dear—but I can't get out!' Which led Denayer to the conclusion

that the rear door handles were fine for road-testers and Rover's workers, but difficult for the less-strong.

Denayer is a car buff, even a car enthusiast. But, after 10 years of road-testing, he finds he has little difficulty in being coldly clinical about his subjects: 'I've stepped from a Rolls-Royce Silver Shadow into a Fiat 126, and I can honestly say that, in several respects, the Fiat was the better car. It's all a question of objectivity—resisting pressures from without, not being biased by personal preference.'

It's this objectivity, coupled with a genuine love of cars and driving, that keeps Peter Denayer at the top of the car-testing tree.

'Lucky devil,' say some, 'driving all those new cars.'

'Yes, I am lucky,' he admits. 'I still get excited by cars.'

For better, for worse

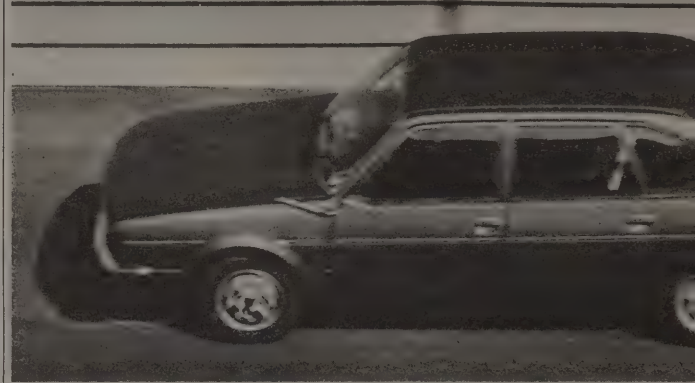
IF THERE'S ONE thing that readers suspect about road tests, it's that they're all done on 'funnies'—souped-up cars, unrepresentative of those that they themselves might eventually own.

Oddly, the opposite is more likely to be true. Tester Peter Denayer reckons that a third of the cars that come in for testing by DRIVE and the AA have deviations from their manufacturer's specification which adversely affect ride, handling, acceleration or mpg.

'In fact,' says Denayer's colleague Doug Houston, 'the first thing we check is that a newly-delivered car is in a fit condition to test.' 'Many test cars,' adds Denayer, 'go back to their manufacturers running better than when they arrived.'

However, Denayer has noted over the years that there is a tendency for test cars to have the mixture and timing altered to improve acceleration times. To do justice to both the reader and the manufacturer, the AA's technical laboratory staff sets each car accurately to the stated technical specification. This, after all, is what any garage has to work to.

A good example of how cars are given a fair chance is the Triumph TR7 sent back to Leyland, on Denayer's advice, for an engine rebuild. On another occasion, a parcel containing a carburettor for



a VW Golf was delivered to Denayer's home to replace that which he had concluded was contributing to unrealistically bad mpg figures.

Denayer also had to deal with the Triumph GT6 that came for road testing with SP41 tyres on the front and SP68s on the rear, and had the higher rear-tyre pressure on the front. 'I felt . . . very odd,' says Denayer, with characteristic restraint.

Decisive actions

WHAT NO MAGAZINE can ever hope to tell is what YOU will get from a car. Every driver is different, with different needs, and no car test can produce a single verdict that will be of any real value.

What DRIVE aims to do, using all the resources of the AA, is to test each car objectively and subjectively, giving you all the facts, figures and opinions to make up your own mind.

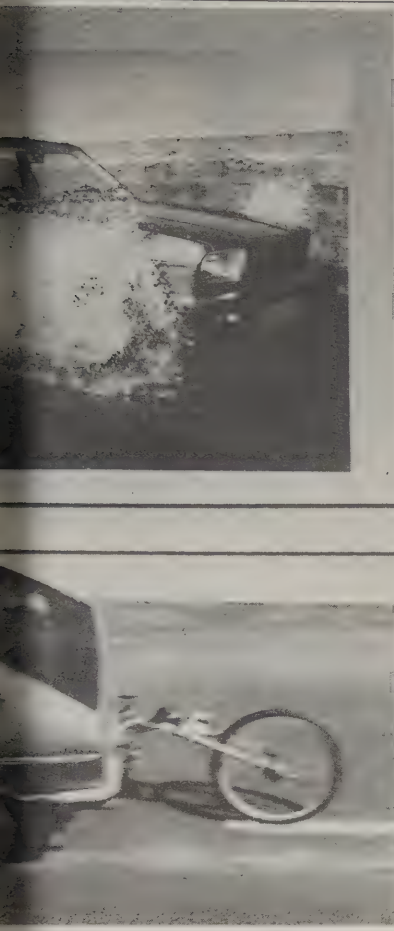
The mass of government regulations, and factors such as the price of petrol, are always changing how people think about and use their cars. As new criteria are established, so DRIVE and the AA alter their test methods. Nowadays, when people

ask Peter Denayer which car they should buy, his first question is: 'How long are you going to keep it?' For, as owners now hold on to their cars longer, durability has become a key factor in choice. 'Many cars are superficially well finished,' says Denayer, 'but may last no longer than a cheaper car.'

So that the test team can decide what is likely to happen to a car over the long term, it has the back-up of the AA's engineering research laboratory at Basingstoke, Hampshire, with its range of specially developed tools and equipment. 'We can criticise,' says research head Doug Houston, 'because we gather all the facts.'

Checking corrosion resistance is one example. Not content with a good poke around the underside of a car, AA engineers use an endoscope, a kind of illuminated periscope, that enables them to inspect inside boxed-in chassis members and concealed body areas—the places where corrosion often first takes hold.

Much of the factual base of each road test is compiled at MIRA—the Motor Industry Research Association test track at Nuneaton,



Days of drama on Denayer's factory floor

HIGH ON THE banked circuit, the knock was persistent and not readily identifiable. But at 110mph, even in a car as inherently safe as a BMW coupé, you don't take chances. DRIVE's car-tester, Peter Denayer, brought the sleek tourer to a rapid halt.

Culprit: loose front wheel-nuts. *Not* a pleasant thought when you're letting a fast car show what it can do.

DRIVE car testing isn't all stately progress round country lanes, checking the mpg figures and the like. The test day at the Motor Industry Research Association test track is a vital ingredient. That's the place to explore the limits of tyre adhesion, suspension and handling in the most punishing of corners and on the most demanding of road surfaces.

The results do not in themselves constitute the test report, but their value is immense for they show what a car can do if and when its driver is caught in an extreme

situation—a situation that may never occur, but which could prove fatal.

MIRA allows the DRIVE tester to explore, in both test-track and laboratory, every aspect of a car's behaviour, from performance testing to the more specialised studies of acoustics and aerodynamics.

With roots going back to the 1920s, MIRA, in its present form, has been established at Nuneaton since 1946. It is now the largest and most-comprehensive motor industry proving-ground in the UK. Even Ford and Vauxhall, which have their own excellent facilities, use MIRA for certain test work, and it's the only proving ground used by Leyland.

Industrial espionage is a constant risk. Gentlemen of foreign extraction with long-distance lenses have sometimes had to be removed.

But DRIVE doesn't go to MIRA to play spy-games. This is Denayer's factory

floor, and, after years of experience, he knows every bump and crack, every bend and kink and change of surface on the ride-and-handling course. 'I know instinctively what I'm expecting a car to do, and I can see how well it matches up to that standard.'

MIRA is where sheer speed and acceleration are assessed; and, inevitably, there have been deaths. Not recently, thankfully—and never to DRIVE testers, though the team has had its moments.

A wheel coming adrift on the banking is a terrifying thought. Peter Denayer has also found himself heading for the outer rim with the steering locked, and only just managed to brake in time. And there was the tricky moment when a Triumph 2500's wayward tail cried 'Enough!' on the handling course and had him teetering on two wheels.

He landed on four wheels ... that time.

Warwickshire. For reasons of industrial security, DRIVE, with the AA, is one of only two outside testing bodies allowed there. 'On any test day, we might be following a prototype of a new Leyland car round the ride-and-handling course,' says Denayer. 'We forget what we see, and keep our mouths shut!'

Two innovations which have quickly made their mark in the new-style DRIVE road tests are the Total Depreciation and Running Cost calculations. 'They occupy only a couple of lines of type, but they're typical of the tremendous amount of work that goes into preparing our reports,' says Houston.

Neither factor, however, replaces the regular DRIVE Index of Motoring Costs, which is calculated on a longer period of ownership—up to 30,000 miles. 'The Index takes over where the new-car road test leaves off,' Houston goes on. 'It gives a good idea of what the second-hand buyer might expect.'

From the start of the new-style DRIVE/AA tests, the brief has been to report on cars in the context of *general use*, not just from the rarified atmosphere of the MIRA test track. All aspects of the test

are vital in their own right, of course, but in the overall, published summary it's the combination of technical research, informed testing, performance testing, Everyman testing and statistical calculation that makes DRIVE's reports ... frankly, unique.

The tests have a second, complementary purpose, too. The DRIVE/AA procedures are recognised throughout the motor industry as being fair, objective and authoritative, and changes have been made to cars as a result of their criticism. Says Denayer: 'We've a reputation for knowing our stuff.'

Never mind the quality

BUYING A CAR means 'making a complex compromise'.

Can a five-seater designed for varied family use also be a good-handling, fun-car when driven solo? That's the sort of question that DRIVE's reports try to answer. 'The secret of motoring satisfaction is finding the car that is good at the things that matter most to you,' advises Peter Denayer.

He breaks it down into three main headings.

Will it fit? Will it fulfil your

family needs, business needs; will it fit your pocket—to buy and to run; will it fit your garage? (Yes—some people actually forget that one.)

Will it please? Denayer makes no judgments. It's all in the eye of the beholder. But face the question of styling versus practicality.

Will it perform well? This is where objective and subjective judgments combine to satisfy your needs. Is it fun to drive? Comfortable, quiet, warm, well-ventilated, safe, durable, well-finished? What will it cost to run in real terms, over the period that you plan to keep it? Does it cater for peculiar family requirements: dogs, back-sufferers, and for the less-physically able?

DRIVE's reports come in two forms—written fact and comment, and the statistical data, graphs and diagrams that summarise the main fact-finding.

'The car that does everything supremely well at a sensible price simply doesn't exist,' says Denayer. 'But considering that, for most families, the car is the second-largest purchase they're likely to make, most are painfully under-researched.'

It's little use considering

the 0-60mph acceleration time as a measure of a car's excellence if it is to be used mainly for local shopping by a driver who likes to get quickly into top gear and stay there. A more meaningful acceleration time would be that from 30 to 50mph in top gear, to show what overtaking capacity the car has without continual gear changing.

Fuel consumption inevitably weighs heavily in any selection process, and DRIVE's reports give a range of comparisons. Overall fuel consumption figures are useful, but they're only part of the story since the differing uses to which a car is put give very different results.

A car may be thrifty doing a steady 50mph, but very thirsty when driven briskly round twisting lanes. Some warm up more quickly than others, and, since cars use much more fuel when the engine is cold, DRIVE's short-suburban-journeys figure will quickly show which car is best for shopping, school trips and short-haul, stop-start deliveries.

That's why Peter Denayer's advice is always first to decide how you'll be using the car ...

Figures to make you look twice

WITH FUEL hovering around the 80p mark, and the £ in your pocket matching its new size in purchasing power, a car's mpg figure can be one of its main selling points.

DRIVE clocks up more than 1000 miles with every test car, and fuel consumption over that period is accurately measured with a metering device fitted in the AA laboratory. The overall figure reached covers the four fuel-test cycles conducted, the whole performance programme at MIRA and family-use in between, and is, believes research head Doug Houston, a very realistic figure.

Road-tester Peter Denayer conducts the fuel-test cycles over a fixed series of routes on normal roads, with as many variables removed as possible: 'I know that around a certain corner I'll always use a certain gear and maintain a certain speed.' He always tests on a dry road, allows a fixed loading for driver and passenger, and allows for any variation in temperature—'It's always spring or autumn on a DRIVE road test. Always 60°F.'

First stage in the cycle is a six-mile suburban drive, starting from cold and taking a set number of road junctions and stops. On a Mini 1000, for example, that gives 35½mpg. Second stage is the brisk-driving mode—a 20-mile dash using A- and B-class roads, but not breaking any speed limits. Again, from a cold start, a Mini 1000 gives 44½mpg.

The same 20-mile route is then used for a pleasant rural potter, not exceeding 40mph and changing gear to suit a more relaxed driving style, and the Mini returns 51½mpg.

Finally there's the motorway-driving test at a constant 70mph—or, in cases where the car's top speed is less than 82mph, at 85% of the mean maximum. The Mini's figure for this motorway work is 34½mpg.

This carefully calculated set of figures is, DRIVE believes, of far more use to a potential buyer than the overall figure alone, or one obtained under constant-speed conditions.

'Constant-speed figures are misleading,' says Denayer,



Doug Houston has strong views on the ECE fuel figures: 'Just ask yourself—is this how you drive?'

flatly. 'They flatter a car with a certain type of carburettor. Ford's so-called "sonic idle" carb does very well at constant speeds, much less so in varied work.'

Fuel consumption is a thorny subject. Manufacturers have often quoted a wide range of mpg figures that can rarely be used in comparison with other cars.

The industry's inability to sort itself out over mpg claims has in fact led to the new 'ECE15 test cycle', which became mandatory in April and obliges manufacturers to quote constant-speed (56mph) and rolling-road figures.

Doug Houston believes that ECE15 poses as many questions as it answers: 'A rolling-road test cannot take into account efficient aerodynamics; because it's taken with the engine running hot, it can't take into account those engines that warm-up efficiently; and the 56mph figure is frankly unrealistic—a Fiat 126 doing 56mph is near its maximum speed, but a Rover 3500 wouldn't even be cruising.'

Houston is convinced that the DRIVE/AA fuel figures will continue to be the only way in which motorists can compare like with like for practical motoring.

Right: buy a new car today, and you'll be given its official ECE mpg figures: one, a lab-test definition of what to expect from a town crawl, the other a figure for doing a steady 56mph—'naive', is how Denayer describes them. And, in an attempt to make everyday sense of them, we have worked out an unofficial mean, the result of simply splitting the difference between these two extremes. The first two DRIVE/AA figures given are just half of a 1000-mile story, and the overall figure is gained from taking every kind of driving into account.

MPG—HOW THE FIGURES COMPARE

Model-by-model	ECE15 test cycle			DRIVE's Comparisons		
	Urban	56mph	Mean	Sub-urban	Rural	Overall
SMALL						
Citroen Dyane 6	39½	49½	44½	41	55	47
Datsun Cherry F11	34½	48½	41½	32	46	38½
Fiat 126	38½	46½	42½	42	56	48½
127 900	33½	48½	41½	36	51	41½
Ford Fiesta 1000HC	34½	48	41½	33	49½	41
Escort Popular 1100	30½	42½	36½	28½	41	35
Honda Civic 1250 5-door	38	44½	41½	31	47½	36½
Leyland Mini 1000	38½	48½	43½	35½	51½	42½
Mini 1100	35½	46½	41	35	48½	40½
Peugeot 104GL	32½	47	39½	29	42	36
104SL	32½	44	38½	29½	42½	35½
Renault 5TL	31½	46½	38½	33½	46½	39½
5GTL	32½	57½	45	34½	48½	42
5TS	28½	42½	35½	31	43	36½
Vauxhall Chevette saloon	29	42½	35½	32½	45½	37
VW Polo 900	32	48½	40½	32	49½	39½
1100	30½	43½	37	28½	44	38
INTERMEDIATES						
Chrysler Sunbeam 1.6	27	40½	33½	27	38½	33½
Alpine 1300	31	37½	34½	25	37½	31
Alpine 1442	26½	39½	33	25½	38½	32
Citroen GS Club 1220	25½	41½	33½	26½	41	33
Fiat 128 1100	30½	44½	37½	—	—	38
131 estate 1600S	25	42½	33½	26½	38	32½
Ford Escort 1300L	38½	38½	38½	30	39½	33
Cortina 1600E	26½	37½	32	25½	34½	30
Cortina 1600	25½	38½	32	21½	30½	27
Cortina 2000 estate	24	36½	30½	21½	33	27½
Lada 1300ES	23	34½	28½	23½	34	28
1500	23½	34½	29	22½	31½	27
Leyland Allegro 1300	31½	41½	36½	29½	43½	36½
Marina 1.3	30	39½	34½	32½	37½	33
Triumph Dolomite 1500HL	26	47	36½	27½	38½	31½
Mazda 323 1300	32½	39½	36½	29	44½	36½
Peugeot 304GL	29½	42½	36½	29½	42½	35½
Polski 1500	25½	37½	27	24½	36	29½
Renault 14TL	31	44	37½	31	44½	36½
Vauxhall Cavalier 1.3	28	43½	35½	29	42½	35½
Cavalier 1.9 auto	25	35½	30½	22	31	27
Volvo 343 auto	24½	37½	30½	22½	34	29½
VW Golf 1100	33½	42½	38	28½	42	35½
Passat 1600LS	25	41½	33½	26½	38½	33
Passat 1300	28½	41½	35	27½	37½	31½
Kombi Type 2 1970	20½	27½	24	19	27½	23½
SPORTS COUPES						
Alfasud 1300ti	28½	45½	37	25½	39	34½
Colt Celeste GT	20½	35½	28	25½	36½	30½
Fiat 128 3P 1300	24½	41½	33	30½	42	35½
Honda Accord auto	29½	38½	34½	27½	37½	32
Leyland Triumph TR7 4gear	25½	40½	33	22½	33½	28½
Renault 15GTL	26½	41½	34	27	39½	33½
VW Scirocco	27	42½	35	28½	42	34½
PRESTIGE MEDIUM AND LARGE						
Audi 100LS	22½	36½	29½	21½	33½	29
Citroen CX2000 saloon	20	34½	27½	23	32½	29½
CX2400 estate	20	30½	25½	19	29½	25½
Leyland Princess 1800HL	24½	37½	31	27½	34½	29½
Princess 2200HL	22	34	28	21	31	26½
Rover 3500 manual	16½	36½	26½	17½	27	24½
Rover 3500 auto	19	31½	25½	17½	26	22½
Peugeot 504GL	23½	36½	30½	22	33	27½
604SL	17½	31½	24½	18	28	23½
Renault 20TL	25½	39½	32½	22½	35½	29½
20TS	22½	35	29	22½	34½	29½
30	16½	33½	24½	18	28½	23½
Vauxhall VX1800	18½	35½	27	21	32½	28
Volvo 244DL	20	31½	25½	23	34	27½

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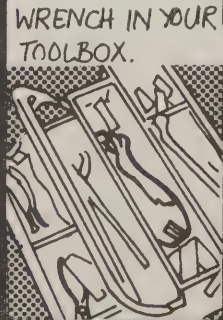
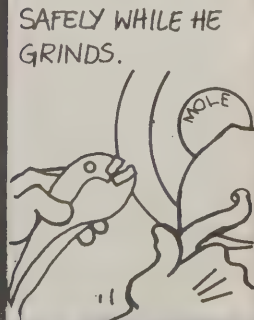
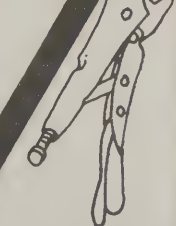
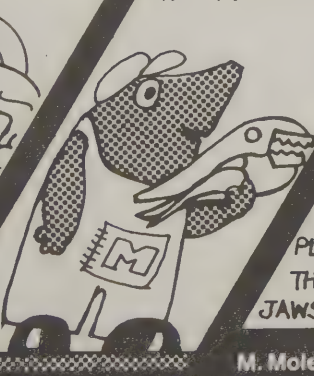
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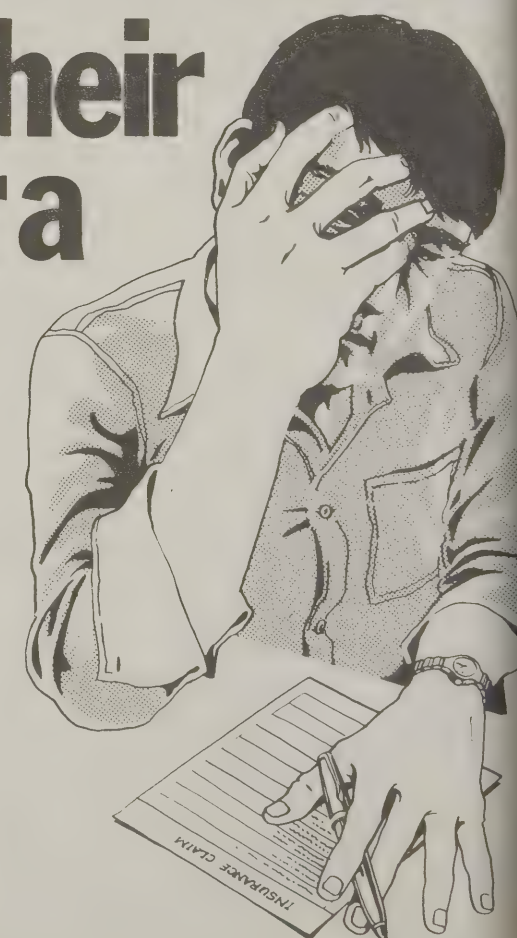
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accurate quartz clock, and a nice padded steering wheel.

The doors are trimmed with carpet on their lower edges, and the window sills are soft-padded. The carpet and the rest of the trim didn't appear to be particularly hard wearing.

The Golf has a unique rear-seat folding arrangement that, although more cargo-space restricting than some, does mean that you don't have to worry about bulky objects hitting you in the back of the neck in a sudden stop: the squab folds on to the

cushion, then both fold up against the front-seat squabs.

With the car set up as a four-seater, luggage space is still generous, and it is here that the Golf offers valuable extra inches over conventional rivals. Its load canopy can be folded to make the car estate-like, or it will provide a sturdy, saloon-car window shelf, hiding luggage from prying eyes.

The tailgate operates easily and, although its load sill is high, the deep luggage floor is a real boon. A reinforced plastic mat discourages loads from wobbling, but the load area, however, is simply painted metal—easily scratched. The spare wheel and jack nestle in a well beneath—tiresome, if a puncture catches you fully packed.

The revised heater-control slides, with a 3-speed fan linked to the ventilators, looked promising when first featured on 1977 VWs. In fact, it has a weaker ram flow that makes constant use of the fan well-nigh essential. There are times when it gets stuffy because the ventilators seem unable to keep up with the warm-air output. Snug at the front the Golf may be, but little of either air current reaches rear passengers.

There have been other rationalising moves to the model's detriment: the dipswitch no longer operates a relay—a sloppier action results; the standardised 120mph speedometer crowds the scene on the lesser Golf's display; and the demister ducts don't aim their flow so accurately now.

To be fair, there are also worthwhile improvements, such as standard reversing lamps built into the rear clusters and an additional parcel tray below the GLS locking glovebox. The tailgate has a combined wash/wipe action, but it would be better if the wiper could be left running on its own sometimes. Unlike those at the front, the rear-wiper's sweep is not converted for right-hand drive, and you *still* can't see the heated rear-screen tell-tale from the driver's seat—a Golf fault since the car's earliest days.

Despite what the adverts say, the

Everyman Report

Glenn Shipton commented: 'The best feature was the easy-flick wash/wipe switch to keep both front and rear screens clean. But I really need a steering wheel that can be adjusted for height, and the gear lever was too far away.'

'The performance was first-rate, the steering good, and the ride was fine, but the car tended to wander on the motorway...'

'I thought it was a noisy car,' said David Everest, 'until I drove the other two. Now I think the Golf is marvellous. I loved the seat belts, visibility was good, thanks to the rear wiper, and apart from a slight roll on corners the road-holding was difficult to criticise.'

James Winchester liked the car: 'There was virtually no noise or vibration at all, and it had excellent acceleration—its best feature.'

Joan Phillips took the Golf over a very slippery road and was delighted by its confident feel. But she had to admit: 'With children, I feel safer in a two-door car.'

Polo is not crashworthy enough to sell in the USA, whereas the Golf is—and does. It has properly-mounted bumpers and a carefully stressed structure to cocoon occupants. Apart from hard areas above the windscreen and on front-seat bases, padding is good.

Living together

When Volkswagen decided on the big switch to front-wheel-drive, it had the good sense to do the job properly. The result is that the Golf is weight-conscious (extra metal equals more cost) yet as impeccably protected against corrosion as the beloved Beetle ever was. The underbody gets a thorough coating of pvc and petroleum wax over a really good primer coat that resists the spread of rust on the outside, too.

Weaknesses? Well, the sills are not coated so generously with pvc these days, and box sections could do with a better penetration of wax protective. Chrome plating is good, and plastic is used sensibly

on bumper ends and radiator grille. The plastic door-mouldings harbour water.

The Golf is nice to clean, except for front wheels that get covered in brake dust and are easily graunched against the kerb—they stick out farther than you think.

DIY mechanics will find the 1460 engine easy to work on, offering excellent accessibility for routine servicing—much nicer for home mechanics than the Beetle. But there are two obstacles: tuning calls for exotic aids such as dwell meters and strobe lights; and the handbook is useless.

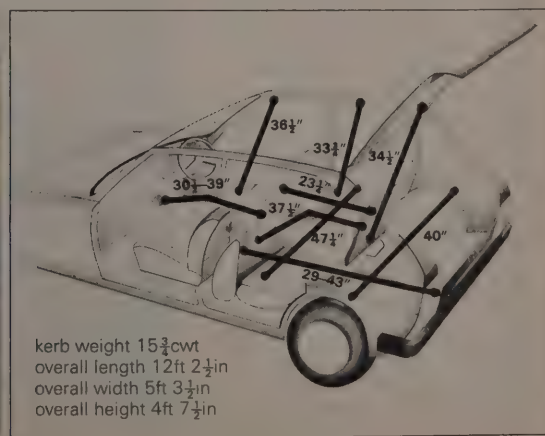
Instead, VW encourages you to take the car for diagnostic maintenance via the plug-in socket provided on every car. This and the advanced design features of the car certainly make servicing costs extremely competitive.

Like spares prices, the Golf's current list price—though higher than rivals—is not as alarming as it was a year or so back. There is, too, a laudable VW Consumer Guide that explains how to go about getting your rights.

Insurance has been lowered one group—to 4—in this latest 1460 guise, and overall depreciation is high only because VW's new car prices have risen so in the last couple of years. The owner of a 1975 Golf must be well content—until he thinks of trading it in against a new GLS!

It wasn't only DRIVE's Everyman panel who took to the big-engined Golf on their first drive: the pros remember falling for the original 1500 in the same way. This VW is more than a fun machine, though—it's smooth and refined, too, with deceptive roominess, marred only by space-wasting GLS seats.

Golf layout offers cunning versatility in a neat family car that is also a joy to drive—and it could equally satisfy an ex-Renault owner or an Alfasud enthusiast. Clever! The Golf's biggest drawback is its price, but it is built well and, despite niggling faults, is earning a reputation for reliability. You pay more—but you do get more.





Chrysler Sunbeam 1.6S

Price £3115 On the road £3173

LIGHT HEAVYWEIGHT CHAMPION?

Two years ago, Chrysler UK was in serious trouble: too few new models and a reputation for poor assembly were denting its image—and it showed in sales. The much-publicised, highly controversial injection of government capital, plus a determination to put things right, resulted in a new small car in record time.

True, the Sunbeam relies heavily on Chrysler Avenger components, but it does present a fresh image all its own. This is Chrysler UK's smallest—succeeding the Imp—but its size and weight pitches it against middleweight rivals such as Vauxhall's Chevette, VW's Golf and Leyland's Allegro, rather than the real super-minis.

In this league, the 1598cc version that tops its three-engine range isn't as extravagant as it first appears. DRIVE chose the 1.6S, and went looking for sunshine.

How it goes

Chrysler's all-iron engine has received a lot of attention to improve its efficiency over eight years of Avenger production. So gradually have the improvements occurred that it is easy to underestimate the sum total of their success. Today's 95mph Sunbeam 1.6S is 11mph faster than the original Avenger 1500, clips 3½sec from the 0–60mph time, yet improves consumption by more than 4mpg. Present-day Chevettes and Allegros are more frugal but slower, and this Sunbeam got respectably close to the performance of the VW Golf 1460.

If the undemanding gearshift is briskly stirred, the 1.6S can out-sprint the equally powerful and weighty Subaru in a 0–60mph dash of 13.9sec, but spirited Sunbeam driving is achieved only by ignoring the transmission tremors that resonate through the body at

50–55mph. Hard revving through the gears is also discouraged by loud, uncouth complaints from the engine when asked to work above 4500rpm.

Fortunately, the Sunbeam handles legal motorway cruising speeds without the growl that was characteristic of the Avenger—thanks partly to a high fourth-gear ratio that keeps the engine down to an undemanding 3900 rpm (less useful around town, where it produces sub-25mph hiccups). Test-car tyre noise was low, but there was wind whistle (despite double door seals), and creaks from the rear hatch and seat latches over bumps.

The opportunity to improve on the Avenger's suspension hasn't been lost, either, but press-on drivers will be restrained by an under-damped system that can induce sideways back-axle hops when a wheel hits a pothole. The Sunbeam can also produce a queasy, floundering sensation on fast, smooth roads, but more-sedate drivers will enjoy the benefit of soft, long-travelling springs that soak up road shocks more easily than a Chevette sus-

pension and deliver a rough-road ride that, at medium speeds, matches the Golf's.

Sadly, the Sunbeam's rack-and-pinion steering approaches neither of these rivals'. There's little sensation of road grip transmitted via the standard radials, and the car can feel dithery in its initial response to the helm. But, once set up for a corner, the 1.6S takes it easily and predictably, with only slight body roll. Around town, the steering is pleasantly light and gives a usefully tight 30½ft average turning circle.

Brakes are commendably fade-resistant and the servo-assisted pedal has short free travel followed by a nice, progressive action—a deftness that eludes some manufacturers. The handbrake, like the clutch, is good for a 1:3 hill.

Inside story

Big, bold keyholes and bolt-type latches inside make Sunbeam exit and entry easy—at least as far as the front seats. With only the squabs tilting forward, rear entry is rather harder, and, once there, footwell space is cramped if front occupants choose to sit well back. The transmission tunnel takes up yet more of the limited rear leg-room, and the ashtray perched on top of it will have a hard life.

The S model's soft front seats offer reasonable support, although DRIVE's testers preferred the firmer furniture of the cheaper GL—much kinder to the spine in the long run.

Alpine fanciers will instantly recognise the comprehensive instrument cluster in the 1.6S. Clearly visible behind the steering wheel's inverted-V spoke are such S-model extras as a tachometer, oil-pressure gauge and voltmeter—all with rheostat-controlled illumination. This is the cream on top of the Sunbeam basic cake of two-speed wipers, hazard lights and rear screen heater.

Some of the minor dials are not very usefully calibrated, and DRIVE still can't get used to the Alpine-style stalks that sprout from the left of the steering

column: the indicator stalk is set confusingly close to the lighting one which combines lever, twist and press actions to operate the lamps and horn (if you can remember which does what). The array of warning lights across the top of the instrument binnacle is more impressive, signalling such motoring crises as a forgotten handbrake, low oil-pressure and brake-fluid loss.

There's a dipping interior mirror and a particularly sensible driver's-door mirror, and excellent all-round vision is one of the car's outstanding features—few are easier to reverse. Whether the heater element on the low rear glass will be safe from sharp loads is another matter...

The rear seat is generously proportioned, and the split folding squab is an important asset—a mother, for example, can sit side by side with a carry-cot. Like other conventional-drive cars, however, the Sunbeam's most critical interior dimension is

Everyman Report

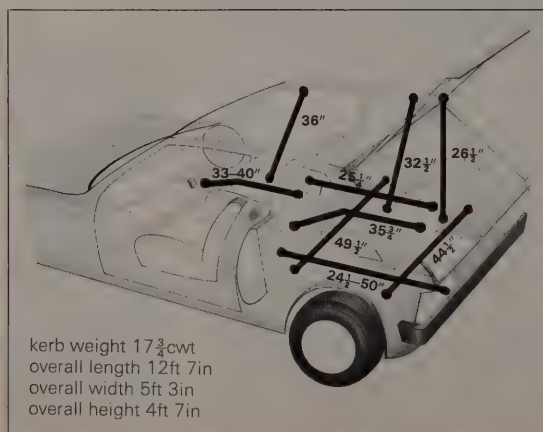
Shipton complained of a slight vibration at 85mph—but he was only joking. He liked the low back window, and found the driving position agreeable.

'The Sunbeam looks quite sporty, and I liked the easy-to-read instruments and rather attractive, one-spoke steering wheel. It's difficult to think of something I didn't like—except perhaps the heater, which seems to warm only one foot.'

Everest disagreed: 'A great big load of nothing—badly designed and badly finished. It is a very poor attempt at a small hatchback. It handled all right, but the performance was poor.'

Winchester, however, thinks Chrysler has a winner on its hands. 'The instrument panel is very well designed, and the whole car looks good. I liked it.'

Joan Phillips loathed the colour scheme, with its garish orange seats, and she complained about the puzzling stalk controls on the steering column.



height, both for rear passengers and for luggage.

With the seat and load-platform having to be high enough to clear the rear-drive, tall folk make contact with the headlining, and even a medium-sized dog can't sit behind like it could in the Golf.

The all-glass tailgate opens effortlessly (with or without the key), but closing it requires two hands: it distorts easily otherwise, and only one of the two catches will engage. There's a high load sill to negotiate, but the S has a second interior light in the back—a facility spoilt by awkward-to-use switches.

It's a simple job to unlatch and drop the rear seat squabs forward on to the cushion to extend the load platform from 25in to 50in long. The drawback is that small objects can slide forward easily to disappear down the gap left behind the front seats. (Mischievous front-seat passengers will discover that it's possible to operate the rear screenwash while the hatch is open for loading, making back seat passengers a little wet behind the ears!)

Like the Avenger, the Sunbeam offers stowage bins in both doors and centre console and a parcel shelf by the front passenger's knees, but none of these is lockable or proof against prying eyes. One shouldn't forget that, despite its versatility, the Sunbeam has less interior room than the Avenger.

The S interior trim is tasteful but unmistakably plastic, feeling rather cold and clinical to live with. Although strong on primary safety, certain features need more attention: front-seat anti-tip latches that didn't always re-engage on the test car, and inertia-reel seat belts that chafe the necks of even average-sized drivers. Roof padding is poor, and the vulnerable fuel tank with its rigid filler pipe seems less than ideal.

The engine's electric cooling fan provides, among other things, more winter warmth. The heater-control slide is slow to take effect but reasonably variable. Fresh-air eyeball vents are less versatile than they look, thanks to fascia styling that diverts their aim, and lowering a window to boost the air supply can—on wet days—bring a refreshing trickle of rain-water, too, from the truncated roof gutters.

More annoying is that, with the car stationary, opening a door can bring in water off the roof.

Living together

Chrysler's main Sunbeam aim was to design a car that would run without constant attention. Whether its laudable intention will be realised seems to hinge on how well the cars can be built at the Scottish Linwood plant.

Standard protection includes

(expensive) pvc chip-resistant paint on the door sills and (cheaper) bitumastic sealant generally applied underneath.

DRIVE's test car, an early-production example, had some obvious misses and, unless better quality control is achieved, the old notoriety will linger.

Comparison of the technical specification for today's small Chrysler with an early Avenger shows up some startling improvements: a 12-fused, sectionalised wiring system, pre-engaging starter, electric fan, alternator—all are standard bill of fare. Servicing ease has been taken very seriously, and, apart from an oil change at half-time, major check-ups are now every 10,000 miles, thanks mainly to the contact-less, transistorised ignition that frees the car from the usual drudgery in this respect. Congratulations, Chrysler, for being first in the small-car market with this important asset.

All other components under the bonnet are simplicity itself for servicers: fluid containers, other than the massive, 7pt screenwash tank that nestles in the wheelarch, are all see-through, and the handbook is really useful to DIY types.

Although unable to accept full-bore from a petrol pump without blow-back, the Sunbeam's filler does not take eternity to brim, and tank range is reasonable—once you learn to keep going until the low-fuel warning begins to glow continuously.

The fabric seat trim on both GL and S models seems tolerant and easily brushable, but the carpets are a different story: they seem reluctant to come clean, the nylon pile holding on to grime. The outside is generally free of dirt traps, but the fancy wheels on the S demand a lot of patience and a flexible brush.

Depreciation is, of course, an unknown quantity at the moment, but the new car will have to forge a brand-new reputation for itself if it is to throw off the Avenger's recent poor record.

Despite conventional engineering that cannibalises whole chunks of existing Chrysler components, the Sunbeam hatches out as a really worthwhile newcomer. It certainly feels and looks far from the glorified botch-up one might have expected of an 18-month creation.

It goes better than any Avenger that DRIVE ever tested, even though some of its ancestral hang-ups remain. If Chrysler can build it right, it could certainly be the easy-to-live-with British success in the family hatchback market.

There are still plenty of people who prefer not to go front-wheel-drive or foreign, and the Sunbeam could be the light of their lives.



Subaru 1600DL

Price £2714 On the road £2814

THE ORIENTAL MOUSE THAT ROARS

Guess who's hoping to inherit the dead Beetle's crown of reliability? In America it's Subaru—the Japanese marque that mixes Oriental reliability with a dash of European front-wheel-drive to produce a car range that has already muscled into the top five imported cars.

Now, Fuji Heavy Industries is invading these shores with a first wave of Subaru 1600s—a coupé, saloon and estate (with the option, too, of four-wheel-drive) at a price that could make them the poor man's Rover (and Range Rover, too).

With its Euro-fashion, horizontally-opposed, four-cylinder engine *a la* Alfasud and Citroën GS, the Subaru looks set—on paper, at least—to compete with some distinguished badges. DRIVE pressed the 4-door saloon for some answers.

How it goes

Foot off the throttle and full choke—as the handbook advises—produces a lot of churning before the flat-four, water-cooled engine splutters into life. It's some relief to the ears when the choke can be pushed home after the brief warm-up period, but anyone expecting the smooth silence of a European engine will be disappointed: 'harsh' and 'coarse' were the politest words that our testers used. Cruising at 70mph on the motorway you could live with it, but open the throttle and the engine literally roared.

Stopwatches reveal a Jekyll and Hyde character lurking under the Subaru bonnet: DRIVE achieved a through-the-gears thrash from 0–60mph in an unremarkable 15.5 sec—the slowest of this test trio. But not everyone gallops through the gears like a car tester, and, in everyday, fourth-gear traffic, the

1600DL feels refreshingly alive.

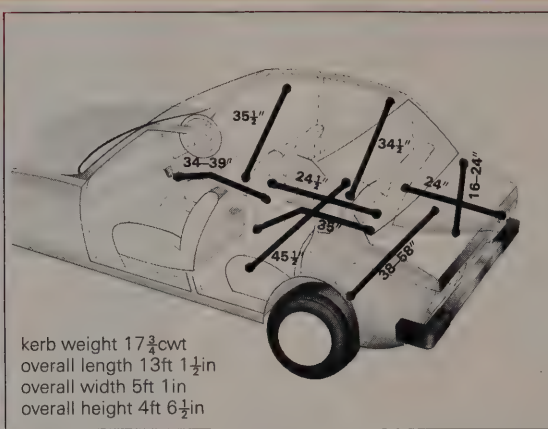
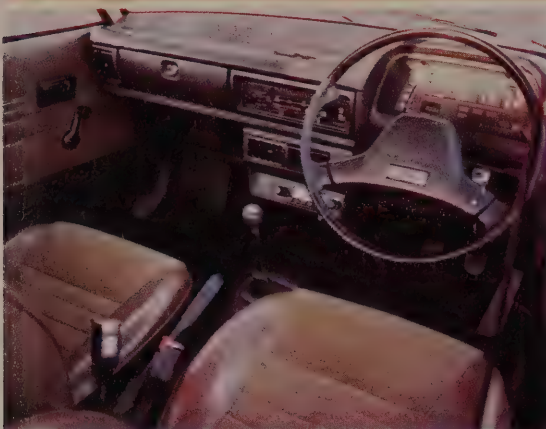
Light-footed testers found it easy to beat the 40mpg barrier on a long run, but the man in a tearing—legal—hurry can bring the figure down to 27mpg.

The owner working out his own motorway consumption figures will get even better results if he believes his instruments, for, at the indicated 70mph limit, he'll really be cruising at 65mph. Even with no low-fuel warning light, it's not too risky to run the 11gal tank down to the last gallon for an effective 320-mile range.

On a bitterly cold February morning, the gearchange was stiff and obstructive. But, within a few hundred yards, it became butter-smooth and—despite a constant zizzing-sound—has to be rated among the best in any front-wheel-drive car. It's backed up with a light and progressive clutch that has only one drawback—its pedal is set higher than the fade-free brakes'.

Subarus feature all-independent suspension by McPherson struts up front and an unusual system of semi-trailing arms and torsion bars at the back. It looks good on paper, but some conventionally sprung cars—Vauxhall's Cavalier, for example—do the job better. Undulations on smooth roads produced the floating feeling that betrays an under-damped back-end. At low speeds on secondary roads, comfort is marred by the growl coming from the steel-braced radial-ply tyres. Small potholes, though, are heard rather than felt.

Handling is very easy, and the Subaru does all the things an honourable family car should do. Roll is well-controlled, although more lateral support from the seats would help. Western-style rack-and-pinion steering is more



precise than most Japanese recirculating-ball systems, but still more vague than on bread-and-butter British cars.

Subaru can claim credit for its fade-free braking system—not usually a Japanese characteristic—but the servo assistance would benefit from second thoughts: a 100lb shove to reach best-stop is beyond the heft of some drivers, and the test car suffered from premature rear-wheel skid.

Inside story

Instrumentation is basic but easy to read. A useful bank of lights warn of a forgotten handbrake, door or choke, and, apart from a cleverly hidden demister switch, the electrical controls are an object lesson in simplicity. With the exception of two switches on the fascia for the hazard flashers and lamps, it's all done by a single stalk on the righthand side of the steering column. This operates indicators, headlamp dip and flash, two-speed wipers and electric washers. Finishing touches to the package include tinted windows and a radio.

The Subaru's seats remind you that the Japanese consider wooden blocks to be adequate pillows. Less-stoic Occidentals will find insufficient legroom at the front, reclining squabs that lack thigh support, and back seats that are cramped by front-wheel-drive standards: definitely a car for the diminutive.

A rare find is a lockable glove-box and a deep parcel shelf. Larger luggage is easily swallowed by a roomy boot (remember them?)—once you've overcome the high loading sill and avoided cracking your head on the lock that protrudes from the boot-lid. A thoughtful touch is the spare wheel that lives tidily under the bonnet: punctures don't mean emptying the boot.

Japanese car heating and ventilation systems all look the same to Western eyes. There's the usual nicety of a recirculating-air setting to avoid breathing diesel fumes from the lorry in front in the traffic jam, but the heater-control slide is fiddly to adjust—drivers

always seem either too hot or too cold. The three-speed fan doesn't help much, but it's commendably silent on all except the fastest setting, and gives a good flow.

Collapsible 'safety zones' front and rear protect the passenger compartment in the event of a head-on crunch, the engine being designed to deflect downwards, away from the occupants. An energy-absorbing steering column is standard equipment, the tank is protected from a rear-end shunt, and door handles should survive a roll-over collision. But, despite all that, the Subaru is bettered by many rivals. Parents should regard the lack of child-proof catches on the rear doors as a serious omission, and the absence of a load-sensitive valve in the braking system might make the difference between a near-miss and an accident...

British-made Britax seat belts are fitted; they're convenient for one-handed operation, but, with the driver's seat pushed back, there's a big gap between the occupant's shoulder and the webbing, making it possible to be thrown over the belt into the non-laminated screen.

Living together

Underbody protection had been

Everyman Report

'I can't understand anyone wanting one of these,' was Glenn Ship-ton's verdict. 'It was certainly the noisiest of the trio, and I didn't like the look of it. A best feature? I don't think it has one.'

Everest found getting in and out something of a struggle, and couldn't get the driver's seat far enough back to accommodate his bulky frame. He complained: 'It's one of the weirdest cars I've seen, and the engine sounds like a lawn-mower.'

Quite a good family car, thought Joan Phillips. 'Its worst feature was its limited power: it didn't pick up at all well, and seemed to labour uphill.' She was not impressed by the boot space nor the oddly-shaped steering wheel.

attempted, post-production, but a number of key areas on DRIVE's test car were totally devoid of sealant. Brackets and cavities were the main problem areas, and insulation tape (applied during production to some parts) was over-sealed on to parts of the Subaru's chassis.

No sealant was visible in any chassis cross-member—where rust could already be seen along the seams. The vulnerable rear inner edges of the front wheel-arches were also exposed. Up top, the rust bug had made itself at home on the window-winder mechanisms, in the bottom of the driver's door, and inside the boot-lid reinforcements, the bonnet and the headlamp surrounds.

Servicing a flat-four engine is less tortuous than many DIY mechanics think, and most of the Subaru's topping-up checks are easy, thanks to see-through reservoirs. Routine jobs look simple, though you do have to remove the air cleaner to change the points. You'll need a prayer mat to find the jacking points, but the scissors-jack in the better-than-British toolkit works well.

Cost of ownership is impossible to calculate while Subarus are still a totally unknown quantity, but owners face the prospect of a Group 5 insurance rating.

With dealers thin on the ground—30, at the last count—servicing every 3000 miles could be a problem, but the 18-month, 18,000-mile warranty is attractive.

On paper, the Subaru takes some beating: the £2714 price is very competitive for a 1600cc four-door saloon, with few rivals managing to price themselves below £3000.

The snag is that the Subaru's a paper tiger, making a bit of fuss and noise to produce a less-impressive performance than many more conventionally engineered cars. Motorists today, however, are more likely to be impressed by its value for money and reliability—and if cosseted American drivers are following the Subaru's starry sign, will Britain lag far behind?

GOLF 1460GLS

Front engine: 1457cc/4cyl OHC (belt); one multi-jet carb; 70bhp at 5600rpm
Front drive: 4 gears, 17.4mph/1000rpm
Suspension: front—ind damper struts & coil springs; rear—torsion beam axle with coil springs
Steering: rack & pinion, 3 1/4 turns/32 3/4 ft circle; 5J wheels, 155SR13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £49.33 (fitting: 2.9hr)
exhaust £43.40 (0.9hr)
headlamp unit (no bulb) £17.44 (0.5hr)
front bumper £23.50 (0.4hr)
laminated windscreen £37.66 (0.7hr)
oil filter and points £4.10 (0.3hr)
major service 10,000 miles (2.25hr av)

	per year	per mile
Running costs	£538	4.48p
Loss of value	£72	0.6p
Total depreciation	£806	6.72p
Insurance group	5	

SUNBEAM 1.6S

Front engine: 1600cc/4cyl, OHV (chain); one vari-jet carb; 69bhp/4800rpm
Rear drive: 4 gears, 18.4mph/1000rpm
Suspension: front—ind damper struts, anti-roll bar; rear—coil sprung live axle, with 4 links
Steering: rack & pinion, 3 3/4 turns/30 1/2 ft circle; 4 1/2 J wheels, 155SR13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £24.96 (fitting: 1.9hr)
exhaust £39.42 (0.6hr)
headlamp unit (no bulb) £13.60 (0.5hr)
front bumper £15.12 (0.4hr)
laminated windscreen £47.30 (n/a)
oil filter £2.38 (0.2hr)
major service 10,000 miles (2.75hr av)

	per year	per mile
Running costs	£535	4.46p
Loss of value	£212	1.77p
Total depreciation	£754	6.28p
Insurance group	3	

SUBARU 1600DL

Front engine: 1595cc/4cyl, OHV (belt); one vari-jet carb; 70bhp/5200rpm
Front drive: 4 gears, 17.1mph/1000rpm
Suspension: front—ind damper struts, anti-roll bar; rear—ind by torsion bars & semi-trailing arms. Steering: rack & pinion, 3 3/4 turns/33ft circle; 4 1/2 J wheels, 155SR13 radials. Brakes: servoed discs front/drums rear

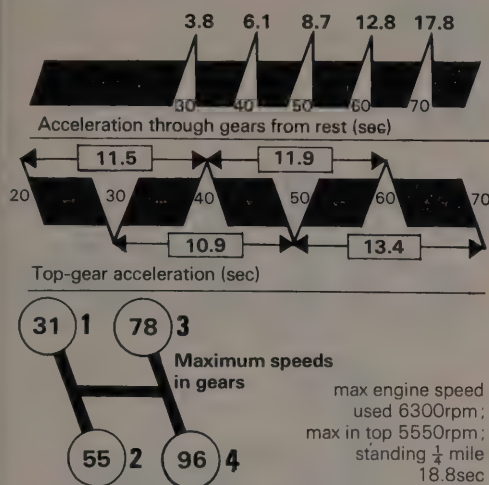
Parts/repairs (inc VAT)
clutch £32.40 (fitting: 3.1hr)
exhaust £36.77 (1.2hr)
headlamp unit (no bulb) £2.98 (0.5hr)
front bumper £28.86 (0.5hr)
laminated windscreen £61.55 (1.1hr)
oil filter and points £3.47 (1.2hr)
major service 6000 miles (3hr min)

	per year	per mile
Running costs	£630	5.25p
Loss of value	not yet known	
Total depreciation	not yet known	
Insurance group	5	

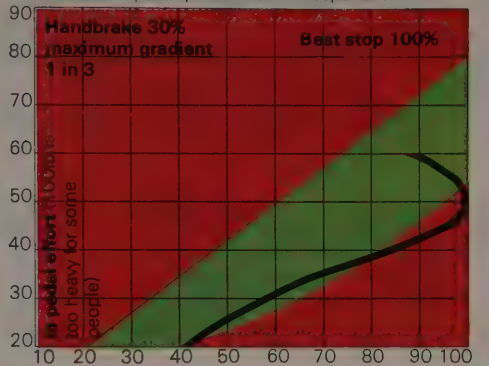
THE RIVALS CLOCK IN

Austin Allegro 1500 Special
Renault 12TS
Triumph Dolomite 1500HL
Volvo 343 (auto)
Datsun 140J

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 2-star/91 octane min
overall consumption 34 1/4 mpg
effective tank range 280 miles/8 1/4 gal

Normal range of consumption

hard driving, heavy traffic	27 1/2 mpg
short-journey suburban	28 1/2 mpg
motorway—70mph cruising	29 1/2 mpg
mixed roads—brisk—50mph cruising	35 mpg
quiet rural—40mph cruising	40 mpg

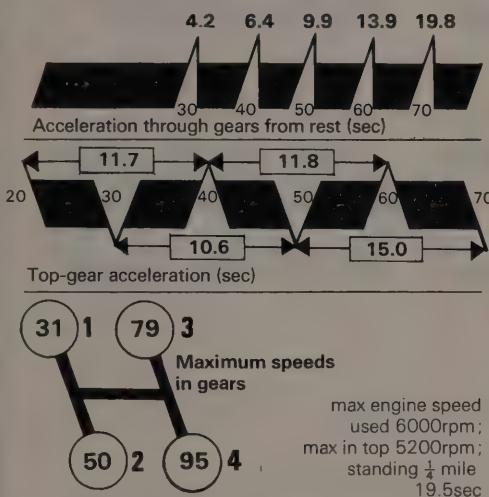
Consumption at steady speeds

30mph	49 1/2 mpg
56mph	36 1/2 mpg
70mph	29 1/2 mpg
max mph	19 mpg

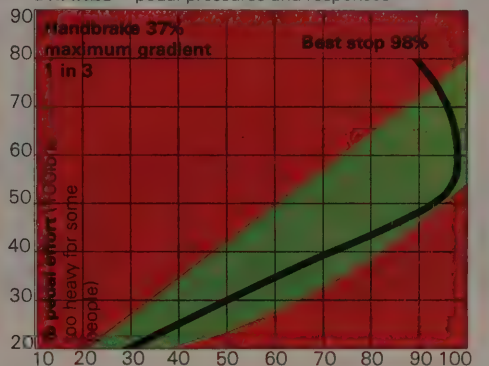
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load-sensitive?	No

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane
overall consumption 33 1/2 mpg
effective tank range 270 miles/8 gal

Normal range of consumption

short-journey suburban	27 mpg
hard driving, heavy traffic	27 1/2 mpg
motorway—70mph cruising	30 1/2 mpg
mixed roads—brisk, 50mph cruising	34 1/2 mpg
quiet rural—40mph cruising	38 1/2 mpg

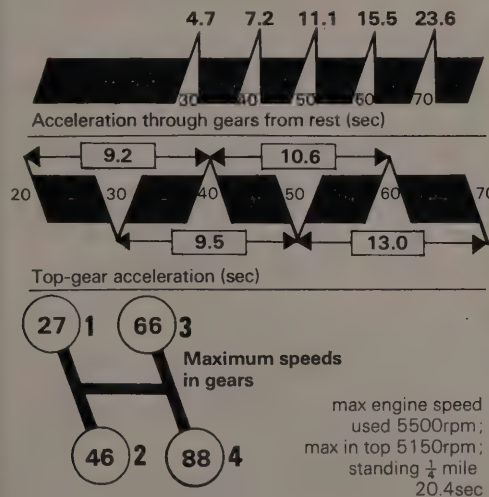
Consumption at steady speeds

30mph	48 1/2 mpg
56mph	40 1/2 mpg
70mph	30 1/2 mpg
max mph	19 1/2 mpg

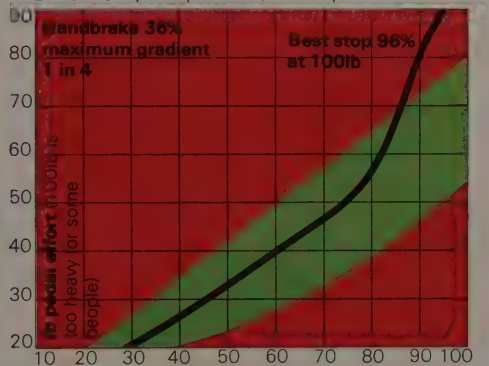
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	No	interior: well padded?	No
head restraint?	No	w/screen: laminated?	O
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	No	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load-sensitive?	No

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 2-star/83 octane
overall consumption 32 1/2 mpg
effective tank range 320 miles/9 3/4 gal

Normal range of consumption

hard driving, heavy traffic	27 mpg
short-journey suburban	27 1/2 mpg
motorway—70mph cruising	30 1/2 mpg
mixed roads—brisk, 50mph cruising	33 1/2 mpg
quiet rural—40mph cruising	39 1/2 mpg

Consumption at steady speeds

30mph	52 1/2 mpg
56mph	38 mpg
70mph	30 1/2 mpg
max mph	19 1/2 mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	No	w/screen: laminated?	No
front belts: effective?	No	doors: crashproof?	Yes
convenient?	Yes	childproof?	No
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load-sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/CIRCLE (FT)
3101	1485	34 1/4	92	16.6	11.5 (4th)	90/55	12' 8"	40	40 1/2	3 1/2/34
3089	1289	33 1/2	91	15.1	12.5	100/40	14' 3"	39 1/2	36 1/2	3 1/2/33 1/2
3602	1493	31 1/2	89	15.0	11.0	95/60	13' 6"	40	37	3 1/2/30
3455	1397	29 1/2	88	17.2	8.2 (k/d)	96/55	13' 9"	41 1/2	40 1/2	4 1/2/29 3/4
2756	1428	32	94	15.5	11.3	100/80	13' 6 1/4"	40	35 1/2	4/32

4th—4th gear

k/d—kickdown

Lower interest rates on loans for members

250,000 choose this exclusive plan

Already more than a quarter of a million AA members have taken advantage of the special terms in an exclusive personal loan plan, arranged by Mercantile Credit Company. This is the only loan plan officially approved and recommended to members by the AA.

Save time by using the form opposite to apply for your loan now. We promise you a speedy answer.

How much? How long?

The minimum initial loan is £200 and normally repayment can be spread over periods up to five years, and even longer for more costly home improvements.

All loans are subject to compliance with Government controls, for example the maximum loan on a motor car is two thirds of the cost and the longest payment period is 24 months.

Apply now.

Below are tables at the current rate of interest which will help you decide on the loan which suits you best. Complete the application form opposite and post it to AA Mercantile Credit, FREEPOST, London WC2B 5XA... no stamp is needed. As soon as your loan is approved you will receive a personal cheque in a few days.

AA MEMBERS' LOAN MONTHLY REPAYMENT TABLES

Interest on amount of loan: 1-2 years - 9% flat for each 12 months 3-5 years - 9.5% flat for each 12 months

Amount of loan	12 Months True interest 17.5% p.a.			24 Months True interest 17.5% p.a.			36 Months True interest 18% p.a.			48 Months True interest 17.5% p.a.			60 Months True interest 17.5% p.a.			Amount of loan
	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	
£	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£
200	218.04	18.04	18.17	235.92	35.92	9.83	257.04	57.04	7.14	276.00	76.00	5.75	295.20	95.20	4.92	200
300	327.00	27.00	27.25	354.00	54.00	14.75	385.56	85.56	10.71	414.24	114.24	8.63	442.80	142.80	7.38	300
400	435.96	35.96	36.33	472.08	72.08	19.67	514.08	114.08	14.28	552.00	152.00	11.50	589.80	189.80	9.83	400
500	545.04	45.04	45.42	589.92	89.92	24.58	642.60	142.60	17.85	690.24	190.24	14.38	737.40	237.40	12.29	500
600	654.00	54.00	54.50	708.00	108.00	29.50	771.12	171.12	21.42	828.00	228.00	17.25	885.00	285.00	14.75	600
700	762.96	62.96	63.58	826.08	126.08	34.42	899.64	199.64	24.99	966.24	266.24	20.13	1,032.60	332.60	17.21	700
800	872.04	72.04	72.67	943.92	143.92	39.33	1,028.16	228.16	28.56	1,104.00	304.00	23.00	1,180.20	380.20	19.67	800
900	981.00	81.00	81.75	1,062.00	162.00	44.25	1,156.68	256.68	32.13	1,242.24	342.24	25.88	1,327.80	427.80	22.13	900
1,000	1,089.96	89.96	90.83	1,180.08	180.08	49.17	1,284.84	284.84	35.69	1,380.00	380.00	28.75	1,474.80	474.80	24.58	1,000

For loans in excess of £1,000, total repayable, interest and monthly payments are pro rata. Rates at 13th March 1978.

Use this form to get your cheque quicker

To apply for your AA Members Loan complete this form and post to
AA/Mercantile Credit, FREEPOST, London WC2B 5XA.

	DEPT	SERIAL NO.	CHECK DIGIT
Surname	<input type="text"/>	<input type="text"/>	<input type="text"/>
First Names	<i>For office use only</i>		
Married/Single (Tick as applicable)			
Country of Birth			
Date of Birth			
Are you in good health? YES/NO			
No. of dependent children			
Full postal address	AA Membership No.		
	Purpose of loan (give details)		
Postal Code			
How long at address?			
Tel. No.	Total cost of goods or service £		
Owner/Tenant House/Flat/Rooms/ Living with parents (Tick as applicable)	Amount of cash required £		
Profession or trade	Repayment period required months		
	Average net monthly take-home pay (i.e. after deduction of Income Tax, N.H.I. Contributions, etc.) £ monthly		
Name of employer	Any other income £ monthly		
	Please submit your latest P.60 or other annual advice or at least two monthly/weekly pay slips		
Business address	Mortgage payments/Rent £ monthly		
	Total of current hire purchase and credit payments (Including credit cards) £ monthly		
How long in their employ?	Any other regular payments £ monthly (Give details e.g. insurance premiums)		
Bankers	Total £ monthly		
Bankers address (in full)			
Do you hold a Barclaycard? YES/NO			

You may make all enquiries necessary to enable you to consider this application and also disclose to the National Credit Register details in respect of this transaction excluding any information relating to income. It is understood that you reserve the right to decline this application without stating a reason. Membership of the Automobile Association does not in itself ensure acceptance.

SIGNATURE

DATE

Clinic

Any problems? Whether they are technical, insurance or legal, DRIVE's experts can help. Write to: Clinic, AA, Fanum House, Basingstoke, Hampshire RG21 2EA

Non-stop Fiesta

My Ford Fiesta's engine keeps running-on after the engine has been switched off. An engine-tuning firm has told me that this could be because I use cut-price petrol, but I always use 4-star.—G GOCH, STEVENAGE

The rating of your cheap 4-star could be anything from 97 to 99 octane, depending on the ingredients. However, the Clinic team doubts whether any variation in this range would be enough to cause your problem. Running-on is more common in these days of high compression ratios and hot-running engines, and Fiestas (particularly the 957cc version) are prone to it.

Try having the engine carefully tuned. But if this doesn't cure the trouble, don't despair. Ford now produces what it calls an 'anti-

dieseling kit', which is basically a solenoid-operated valve that automatically opens to vent the inlet manifold when the ignition is switched off. This weakens the unused petrol so much that the engine simply can't run-on on it. The kit can be fitted under warranty in special cases, but it is a fairly simple job for the DIY man.

Treading warily

I have recently changed the tyres on my 1961 Wolseley 1500 from cross-ply (5.60x14) to the nearest equivalent in radial-ply (155x14). Does this slight difference mean that the car's tracking will have to be reset, and could there be any other problems?—J R SHILLABEER, WATFORD

Your change to radial-ply tyres may indeed alter the car's tracking, and it's certainly worth checking that this is set between parallel and a toe-in of $\frac{1}{16}$ in. You will slightly increase your tyres' number of revolutions per mile by the change-over, but the effects on the speedometer and odometer will be too minute to worry about.

Keep the change

When I sell my old Humber Sceptre I should like another car that is fitted with its Borg-Warner 4-speed automatic gearbox, which I find vastly superior

to the 3-speed type. But I never see a car advertised with this particular box. Can you tell me if it is still made, and if any current models offer it?—C E D CHAMIER, HENLEY-ON-THAMES
Most UK-built Chrysler models—Sunbeam, Avenger and Hunter—are available with the Borg-Warner 45 automatic transmission. It is an impressive box, providing brisk and smooth changes with excellent downshift selectivity. The 3-speed auto-boxes are more common because they are cheaper to produce, and some manufacturers consider that their engines provide enough torque for performance and economy not to be seriously compromised by the lack of a fourth gear.

Up and get under

I want to give the underside of my car a thorough check. Are there still garages where the public can hire hoists and equipment for such do-it-yourself jobs?—T BUZZARD, HAYWARDS HEATH
Sorry, but it seems this service is no longer available. After a promising start, some proprietors found that their insurance premiums were too costly. They also suffered the theft of expensive materials, and the professional 'nursemaids' often had to work like Trojans to bolt customers'

dismantled cars together again. These days, your best bet is local high-street hire shops, most of which lease hoists, ramps and other car-maintenance equipment. Otherwise, you could ask a friendly neighbourhood garage for help.

Unclean sweep

Before buying a Renault 12, I took a test drive in a demonstrator. It was a fine day and I was very happy with my choice. It was only after I had taken delivery of the car, and drove it in the rain, that I realised that the 12 has what I consider to be a dangerous fault. The wipers are positioned to suit lefthand-drive versions, leaving a large, unswept triangle at the top of a British driver's side of the screen—a problem brought home to me by a near-collision. Is it possible to change the wipers over in some way to cure the problem?—B ALLIT, LONDON

No, unfortunately it isn't. It's something that ought to be done by the factory, but it obviously doesn't see fit to transpose the wiper spindles to allow the driver's blade to sweep up parallel with the off-side windscreen pillar. Fiat is one company that makes such a change to its righthand-drive models; it's a pity Renault (and other 'guilty' manufacturers such as Peugeot and Volvo) don't follow its example.

Changing values

The car I bought new in 1973 now costs almost £600 more in the showroom; secondhand, it is worth almost as much as it was five years ago. Would it be wise to ask my insurance company to revise the value quoted in the policy?—D BOLTON, DUNDEE

Unless you arranged a fixed-value policy at the time you bought the car, the insurer will usually base any total-loss payment on current market values. This, of course, is affected in the normal way by mileage and general condition, so it could be worth consulting your insurer if the car is in particularly good condition for its year.

Poles apart

How can I identify the positive and negative terminals on a battery when they are not marked? Recently I had to recharge mine, and afterwards found to my horror that I didn't know which way round it should be replaced.—L LANDER, YEOVIL

You can't check your battery's polarity without a meter or reference to the manufacturer's data—the terminals look identical. If you take a guess when refitting the cables, you're playing Russian roulette with your electrics. With the battery connected the wrong way round, you'll immediately damage the alternator or, if the car has a dynamo, blow the control box as soon as you start the engine. Accessories such as electric



GREAT ESCAPES

Greek classics

THE SUN was barely above the yardarm and the glass beside me only just below high ouzo mark. Which was puzzling, because I had begun to see weird little beasties. Not the mythological creatures you might expect to imagine, sailing in the wake of Odysseus, but tangible and very prickly... as the bearded 'papa' sitting next to me found out.

With a scream more piercing than the ship's siren, he leapt in the air as one of them sought the sanctuary of the church beneath his long black robe.

Well... you don't really expect

to be molested on the high seas in broad daylight by something as rural as a hedgehog, do you?

All the same, it did prove that, if you want a cruise to tickle your fancy, one of those slow cargo-passenger boats that ply the Aegean Islands just can't be bettered. Loaded down to the Plimsoll Marks with Rabelaisian humanity, lurching under barrel-loads of wine and olive oil, creaking to a cacophony of chickens and goats, they are the maritime versions of market-day buses.

But, as the 'papa' and a swelling crowd of wildly gesticulating Greeks clearly felt, hedgehogs are definitely stowaways. Yes—hedgehogs in the plural. For within minutes, half a dozen had been sighted scuttling for cover from the engine room to galley.

How the creatures got on board seemed a mystery, but the colourfully garbed steerage passengers encamped on the poop gave a clue. There, complete with pots and pans, dogs and grubby urchins, was a tribe of gypsies.

They had, it appeared, come on board during the night at our last port—bound for Piraeus where, it seems, the citizens just clamour for clothes pegs and good fortune-tellers are revered. Now the gypsies were having their future forecast in ageless nautical Greek by the burly mate, waving a torn sack from which undoubtedly the hedgehogs had nibbled their way to freedom.

They must have guessed their fortune, too, for they were to have ended up as that gypsy delicacy—baked hedgehog.

Personally, I prefer the succulent dishes of fresh fried, sliced squid and other tasty seafood, along with juicy salads swamped under local cheeses that I enjoyed at quayside cafés. These were never more than a few steps from the ship's berth in the heart of lovely, unspoilt little harbours.

There was none of that package-cruise, clock-watching rush to rejoin the ship. Most times, the captain and his crew joined the passengers over drinks, happy to wait until we were ready to leave. What we lacked in cabarets they made up for with their own floor show—performing wild Greek dances on and around the tables.

There was no 'sun deck', but no one minded us sitting on the open wings of the tiny bridge. If we lacked a swimming pool, it was just as pleasant bathing in the clear waters of the harbours.

The sea looked just as wine-dark as from a smart cruise ship, but my seven days at a quarter of the cost was transparently better value.

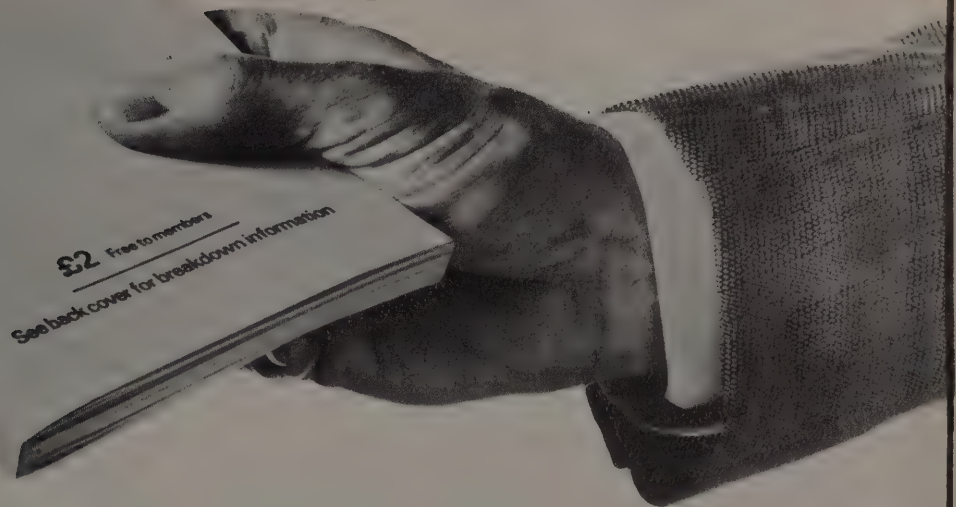
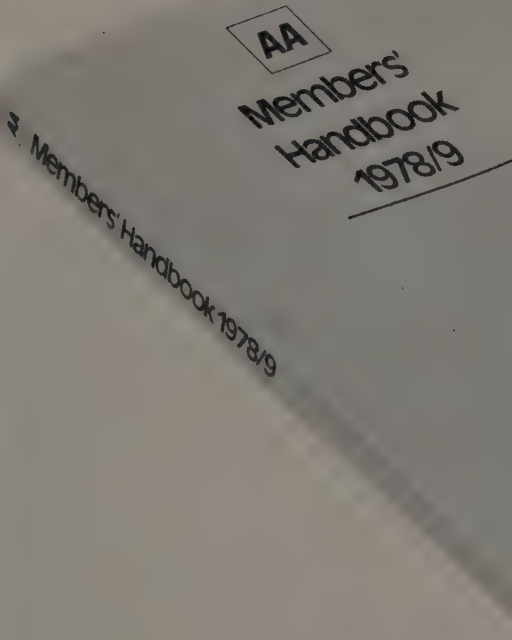
BILL GLENTON

Agapitos Steam Ship Company, 99 Kolokotronis St, Piraeus; Naxos SS Company, 15 Aristidou St, Piraeus; Naias SS Company, 3 Akti Tzelepi St, Piraeus. Other information from Greek Tourist Office, Regent St, London W1.

The 1978/9 Members' Handbook is now available...

to all current AA members who are entitled to receive a copy, at any AA office on presentation of their Full Membership Certificate. Call in soon and collect a copy—it's one of the valuable benefits of your AA Membership.

Alternatively, send your name, address and Membership number, plus 35p to cover the cost of post and packing to the Regional Headquarters address nearest your home (shown below), marking your envelope "HANDBOOK."



THE AUTOMOBILE ASSOCIATION

London and the South East
Fanum House, 7 High Street,
Teddington TW11 8EQ
The Midlands
Fanum House,
Dogkennel Lane,
Halesowen B63 3BT

The North
Fanum House, Station Road,
Cheadle Hulme,
Cheadle SK8 7BS
Wales and the West
Fanum House, Park Row,
Bristol BS1 5LY

**Scotland and
Northern Ireland**
Fanum House, Erskine Harbour,
Erskine PA8 6AT
Republic of Ireland
23 Suffolk Street, Dublin 2,
Republic of Ireland

COLLECT YOURS NOW.
IT'S GREAT TO FEEL YOU BELONG.

AA

clocks and radios will also be affected. Owners of batteries with tapered terminal posts are luckier; the smaller post is the negative.

Clear conviction

Although I received an absolute discharge for a car-insurance offence, the court endorsed my licence. Surely, if I have been cleared of the offence, I should not have an endorsement imposed?—Name and address supplied

In legal terminology an 'absolute discharge' is a conviction, so, although the court does not have the power to impose a fine, it can still endorse a licence.

Your starter for 1600

Soon after delivery, the starter motor of my new Ford Escort Ghia 1600 began to play up, and, as the weather became colder, could barely turn the engine over. A Ford main dealer has fitted a replacement, which is behaving itself, but next winter, when the guarantee has expired, I fear that I may again be left stranded by a starter that doesn't like the cold.—S S LESLEY, SOUTHAMPTON
Ford tells us that it has suffered a shortage of electrical components—including starter motors—since last October, when a parts depot in Germany was gutted by fire. The company admits to reliability

problems with its starter motors because of 'tight cost control', but says it is trying to improve things.

Often a 'lazy' starter is merely the result of poor battery connections or a faulty earth lead; but if the problems can be isolated to the motor you can suspect worn brushes or—rarely—misalignment of the unit. Any such faults are highlighted by cold weather.

Sooty and steep?

I want to fit a stainless-steel exhaust to my Fiat 132GLS, but I've been told that, while the stainless variety doesn't rust, it can get blocked and cause engine damage. Before I part with the £90, can you tell me whether 'sooting-up' is likely?—P QUINN, WORTHING

This sounds like an old wives' tale. Stainless-steel exhaust systems are no more likely to soot-up than ordinary mild-steel systems, so there is little chance of blockage or engine damage.

Seal of Approval

It's not unusual for John Stubbs, the AA's senior research engineer, to take home other people's washing. Subjecting new car seat covers to the family washing machine is one of the simpler tests the experts use when judging a product's eligibility for the AA's coveted Seal of Approval.

It can take anything from a week to three years to test a product to the AA's satisfaction—during which time almost a third of the items submitted fail to meet the required standards.

Approved products are retested annually to ensure that standards are maintained—and the scheme doesn't cost AA members a penny, for it's the manufacturers who pay. Says Doug Houston, head of the AA's engineering research unit: 'The Seal reassures the customer that he is buying the right product for the right job. We make sure that the claims made by the manufacturers are justified.'

'If the product already has a standard placed on it—by the British Standards Institution, for example—we base our research on that. But if there's no standard to work to, we define our own requirements. We also actually use the product...'

The Seal of Approval has recently been awarded to: Haltrac hoist; Slideaway folding roof; Sunway folding car roof; Paddy Hopkirk door mirror; Comma universal brake and clutch fluid; Autogem penetrating de-watering aerosol; Socketronic seven-pin plug and socket; Paddy Hopkirk car fire extinguisher; Optim quartz digital car clock; Sparktune dwell/voltage tester; Britax Sunliner

sunroof; Microplus electric screenwash pump; Elecolit 340 repair paint for heated rear screens; MPL windscreen-wiper blades; CS rubber suspension units for small trailers; Shield penetrating de-watering aerosol; and the Auto Splice towrope.

The Seal has been withdrawn from Jon Tailorite car seat covers; SCS simulated sheepskin car seat covers; Transgrove simulated sheepskin car seat covers; Clay Rustprotection; and the Endrust Rustproofing system.

The manufacturer of the Britax Hazard Warning four-way flasher has not applied to renew its Seal.

Good companion

Can you settle an argument? My friends have different ideas on the length of time one has to be a full licence-holder before being able to accompany a learner-driver. What are the legal requirements?

—M SAUNDERS, BRAINTREE
The Department of Transport says that you can legally accompany a learner-driver as soon as you have passed your own test. But you must be in possession of a full driving licence—a provisional licence accompanied by a pass certificate is not enough.

Allegro aggro

I recently bought a secondhand Austin Allegro 1300 Vanden Plas



Michelin were the first to develop the radial tyre. And have been keeping one step ahead of the competition ever since.

Unlike other manufacturers who still make cheaper cross-ply and textile braced radial tyres, Michelin only make steel braced radials which grip better in the wet and dry, stop without fuss, last a lot longer and have a lower rolling resistance so can reduce your fuel consumption.

And you can start switching in a small way, two wheels at a time, on the same axle. But always consult a tyre specialist.

Switch to Michelin.

automatic, and, while it was under warranty, took it back to the garage to have an oil leak investigated. While it was up on a hoist, with its engine running, one of the mechanics accidentally engaged reverse gear. The car jumped back, rolled sideways, and ended up hanging by the driver's door before finally hitting the floor.

The garage owner has admitted liability and is replacing the damaged parts. He has also said that I can call on a qualified engineer to inspect the repair-work when it is completed. The trouble is that I don't feel like having the car back. Would I be within my rights to ask for my money back?—D ATKINS, WESTON SUPER MARE

It depends on the extent of the damage. If the vehicle can be restored to its pre-accident condition, this is all that the garage is liable for. However, it could also be liable for any further losses you suffer as a result of the mishap—for example, loss of the use of the car, and perhaps any depreciation in its value caused by the accident.

DRIVE staff make every effort to respond quickly to all Clinic enquiries—by telephone or post. Questions that are published are judged to be those likely to interest/inform most readers.



MOTURING LAW Post haste

IT hadn't been Leicester salesman Ken Martin's day. He had failed to win a single order for his firm, and, in the evening, his badminton team was trounced by a village team. So when he drove home along an empty tree-lined road on the city outskirts, he was in no mood to take special notice of the motorcyclist on his tail.

It was when the beam of his headlamps picked out a derestriction sign that Martin realised that he had been driving in a 30mph speed limit zone. But, by then, it was too late. The motorcyclist squirted his machine ahead, and waved Martin down.

'I have followed your car for a mile, and your speed has been between 40 and 45mph,' said the policeman.

Martin knew that there was no point in arguing that he hadn't seen any 30mph signs. As far as the law was concerned, he should have known that he was driving

through a built-up area because the streetlamps were 200ft or less apart. The lack of a 30mph sign was neither here nor there.

'He would have found it very difficult to escape conviction,' comments Jack Smith, head of the AA's legal department. 'But it might have been worth his while to actually measure the distance between the streetlamps, to see if they conformed with the law. If they were too far apart (a couple of feet discrepancy is not enough) he could have had a basis for defence. And it could have been worth him checking with the local authority that these lamp posts were installed before July 1957: streetlamps put up after that date don't automatically signify speed restrictions, unless they display signs.'

'There was a slight difference in estimated speeds, so it might have been possible to argue that the speedometer on the police motorcycle was incorrect. But as police speedometers are checked regularly, this line of defence could have led to an extra charge of Martin himself having a defective speedometer...'

Martin was fined £50, and the conviction in fact cost him a six-month ban under the totting-up procedure—three offences in three years—which was a particularly rotten surprise.

His first offence of careless



'Apparently we're approaching a notorious black-spot'

driving was committed on 1 May 1974, but, because of the pressure of cases at the local magistrates court, and his not-guilty plea, it was not until 18 December that year that he was eventually tried and convicted. His second offence—speeding, this time—was committed in 1975, and Martin believed that the threat of a driving ban was lifted in May last year.

The law, however, works in more complex ways: although Martin's second and third endorsements were backdated by the court to the dates on which the offences were committed, his first was effective only from the date of conviction. And, as fate would have it, his final brush with the law was on 12 December last year—just six days inside the three-year period.

Bad luck, indeed.



COCKNEY George Sewell once had an awesome reputation for violence. How else could it have been, as veteran commander of the most formidable gang that Scotland Yard has ever known?

Today, a lifetime of big-time crime put behind him, he is known to both the police and the villains as The Peacemaker. Several times, trouble has been averted because George Sewell has reasoned with warring car gangs. But—remarkably—he refuses to attempt to make the peace between the rings that seek control at many car auctions because, he says, he is frankly ‘shocked’ by their behaviour.

‘They have just one target,’ explains Sewell, ‘and that’s the little guy who has maybe saved for years for a car, and who goes to the auctions looking for a bargain. He hasn’t a hope against the rings. If they can’t cheat him, they’ll scare the wits out of him...’

He is speaking of auctioneers with blind eyes and quick hammers, of false MoT certificates, of bribery, corruption and, all too often, blatant violence... its presence at many car auctions confirmed by DRIVE reporters in a three-month investigation, and much of it happening under the noses of the police—who, looking only for stolen cars, have neither the time nor the manpower to turn their attention to the rings’ shady practices—and the few-and-far-between consumer protection officers.

In all, DRIVE ran its thumb over 24 auctions up and down Britain, and found only four that could be recommended with any confidence—at Southampton, Eastbourne, Bracknell and Tewkesbury. The rest were, at best, happy hunting-grounds for the villains; at worst, operating in league with the rings.

But it’s likely that, in the near future, more private motorists than ever will be encouraged to go to auctions in the belief that they are guaranteed a fair deal. For the Society of Motor Auctions is soon to submit its first ‘code of practice’ to the Office of Fair Trading.

On the face of it, it is a reassuring consumer-protection move. In reality, with the SMA representing only 35 of the nearly-300 auctions in the country, it is likely only to provide a veneer of respectability that, while endorsing the good reputations of honest, well-run auctions, will give many dubious centres new opportunities to perpetrate the clever dodges and hard-to-detect rip-offs encountered by our reporters. Which is why many villains are awaiting its introduction with rejoicing and much impatience.

Of course, rings operate at many auctions, especially in the world of antiques and *objets d’art*. But it’s when the lots are cars that the game gets particularly rough.

A dealer-ring in North-west London used a presentable, well-dressed man to handle the payola (bribe money). ‘He

foolishly went on the run with half a grand,’ George Sewell recounts, and adds: ‘He should’ve kept running. But he came back, and they striped him. He’ll carry the scars for the rest of his life.’

A DRIVE reporter was warned to keep his enquiries undercover. ‘Aggravate some of the villains,’ he was told, ‘and you’ll have your house burned down in the middle of the night. And no one will worry too much if you’re inside.’

A shop manager in Hackney, East London, paid £625 at an auction for a Ford Cortina. Discovering that it had been in a crash, and was in fact barely worth the tow-away value, he threatened to call in the police... and was taken on a terror-ride. ‘No one laid a finger on him, apparently,’ says Sewell. ‘They just talked to him. But when he got out, he was so terrified he could hardly stand.’

More usually, violence is enacted between rivals who want to control certain areas. During the investigation, a DRIVE reporter saw a dealer kicked and punched in the street after leaving an auction in South London.

A Liverpool ring, whose activities stretch nation-wide, deals somewhat differently, but no less effectively, with infiltrators. ‘We stick a stolen car on them, and then inform the law,’ the gang-leader says, cheerfully.

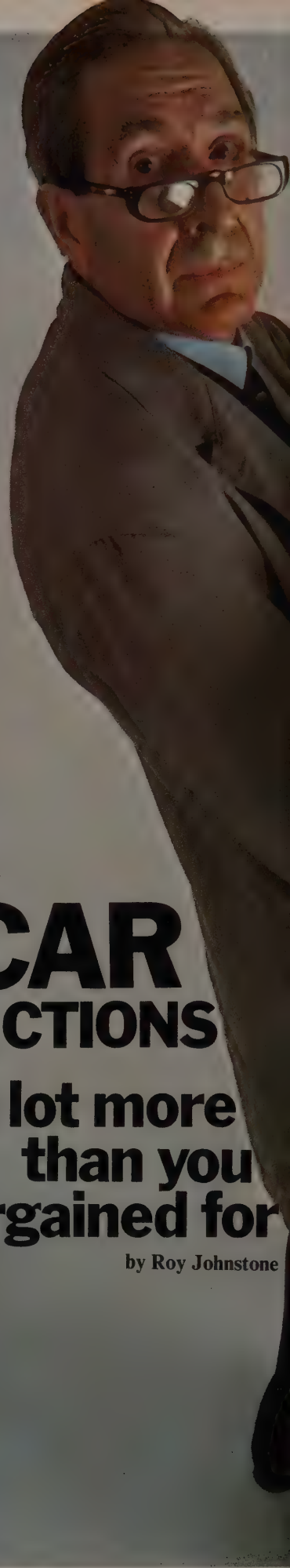
A one-time boxing champion admitted to DRIVE that occasionally he is hired as a ‘minder’ (bodyguard) by a London ring. ‘It’s for protection from the bigger rings,’ he explains, ‘otherwise they couldn’t stay in the business. When you’re making £200 a day, you expect a bit of competition.’

And if the pickings are good for the villains, unscrupulous auctioneers—none of whom has to be qualified or registered—can do just as nicely.

One is known in the trade as The Blind Beggar—‘blind’ because of a tendency to close the bidding abruptly, ‘beggar’ as a result of his readiness to accept back-handers. Others don’t have nicknames, but DRIVE found several of them. One, at an auction in the North, could have been the only man present to have missed the winning bid from the floor. But when, after the swift hammer-fall, the outraged ‘punter’ complained, the shortsighted auctioneer said, blandly: ‘Oh, you’ll have to be quicker than *that*, my dear sir.’

Something similar happened at a South Coast auction. There, the hammer fell very smartly on an L-registered Ford Consul 2500L as another bid was being made, and the car went for £530. In contrast, the auctioneer displayed no such haste with the next two vehicles—an M-registered Vauxhall 2300 and a K-registered Opel Rekord 1900, which fetched £890 and £670 respectively.

DRIVE’s reporter followed up the sale of the Ford—not surprisingly to a car dealer. Believing the DRIVE man to be a fellow-trader, the dealer said: ‘These are good sellers. I sold a 2000 during the



CAR AUCTIONS

A lot more than you bargained for

by Roy Johnstone



week for £800-odd, and it wasn't in nearly such good condition.'

Through the Liverpool ring, DRIVE traced a crooked auctioneer who agreed to talk on the understanding that his identity and whereabouts would not be revealed. He claimed to net between £500 and £1000 a week on the side, and expected, over the year, to make substantially more than the Prime Minister—untaxed, of course. He told us:

One trick that rarely fails is to knock down a car as a 'provisional sale' and inform the highest bidder—usually Joe Public—that the price hasn't reached the reserve. Then I tell him that I'll phone the vendor to see if he'll accept the offer.

Of course, I don't make the call. There's no reserve on the car. But about a quarter of an hour later I go over to the bidder and say: 'If you're willing to shell out another £20, or whatever, it's yours.' He usually thanks me for my trouble and accepts . . . and that's another 20 quid of Mug's Sugar in my pocket. When there is a reserve, I go through the same routine after having reached or topped it.

Obviously, to work this dodge you have to be sure the vendor or his representative isn't around. But I'm usually able to find out when the car is put in, a day or so before the auction. And that's not all I learn . . .

When a private motorist brings a car in, he frequently wants advice, and there are two things I can work then. I can pretend to give the car an inspection and, lying through my teeth, tell him that the underbody is shabby but that I'll do my best for him. After that, I knock down the car cheap with a quick hammer to a dealer I know, or simply make a false bid for it myself under an assumed name.

All I then have to do, a day later, is tell the mug that the buyer has cancelled the sale because he has found certain defects . . . and suggest that if he drops the price I might still be able to make the deal stick. If he okays this, I pass the car on to my dealer chum, and probably add £20 for my trouble.

I put my own cars through the auction, too, but they don't all go before the rostrum. I might put a car in the viewing area, stick a Provisionally Sold notice on the windscreen, then hang around and keep my eyes open.

When I see someone giving it a look-over, I go over and, casual-like, say: 'Like it, sir? The vendor happens to be a friend of mine, and I might just be able to arrange something . . .'

Company-fleet cars are also a cinch. I have an understanding, if you like, with the transport managers of two big companies, and playing the 'one set of paperwork for the customer, another set for the firm' game, we split the profits.

CATCHING A CODE

At present there are 35 auctions affiliated to the Society of Motor Auctions, so with more than 270 auctions spread throughout Britain it follows that a majority will not be obliged to be party to the 'code of practice' soon to be put before the Office of Fair Trading and, hopefully, implemented.

Moreover, the SMA declares that 'probably three-quarters' of the auctions in the UK could not meet the standards required for membership of the Society. It is these, says SMA secretary Reg Pilkington, that are giving the good auctions a bad name.

The SMA is optimistic that, once the OFT approves its code, many more auctions will apply for affiliation, attempting to enhance their public image.

This doesn't have to be the case. For when the Motor Agents Association, in conjunction with the Scottish Motor Traders Association and the Society of Motor Manufacturers and Traders, formulated a 'code of practice' in 1976, membership increased by only 8% in the first year.

Not only this. Of the 57,544 garage complaints received by the OFT from the public in 1977, only 1% involved MAA members (and only 3% of these were justified), suggesting that dubious traders generally prefer to stay outside trade associations and their well-meaning consumer-protection charters.

Another trick is described by a former auctioneer at a centre south of London. 'It's a common caper at small, one-man-band operations where the guv'nor and the auctioneer are one and the same,' he says. 'It's used on cars that have been submitted without a reserve price or a warranty, and when the vendor isn't present, and it's so easy . . .'

'Unknown to anyone, the auctioneer himself makes the securing bid, and later simply enters a lower price on the sale documents. He then gets rid of the car for a profit on a subsequent auction day.'

When auctioneers can hoodwink seasoned car dealers, what chance has Joe Public got? Little, it seems. As a taxi-firm buyer says: 'The regulars spot him a mile off, and immediately the prices, helped by bids from dealers and auctioneers, start to soar.'

A classic example of bid-inflation happened in the South last winter, involving a 1969 Morris 1000. The offers climbed to £320, and seemed set to close, when the auctioneer spotted a 'goldfish' (the trade's name for a mug who can't keep his mouth shut) and started to bid against him.

The victim didn't cotton-on, and in no time the Morris had reached an amazing £600. The auctioneer then announced a non-existent bid of £610 . . . only this time there was no response. Unabashed, the auctioneer brought down his hammer, turned to the 'goldfish' and said, firmly: 'Your bid, I believe, sir.' And he agreed.

William Bickerton, 68, a retired engineer from Worcester, believes that he was conned when, recently, he bought a K-registered Vauxhall Viva. 'I couldn't go to more than £625,' he says, 'and I was out-bid, the hammer falling at £630. Minutes later, as I left, I was told

by the auctioneer's clerk that, if I still wanted the car, it was mine for £625. The other bidder apparently "didn't have the necessary money" . . .

Bickerton left a £50 deposit and agreed to pay the balance within five days. But the more he thought about it, the more suspicious he became. Finally he returned and cancelled the sale, but it took six weeks of argument to get back £40.

John Arden, a buyer for Yorkshire Television, secured an M-registered 2 litre Ford Consul for £740 in January. Sold 'as seen', the car was stated to have done 45,000 miles. But when the auction handed over its MoT certificate—after Arden's cheque had been cleared—he saw that the mileage was 90,824 (later confirmed by the company that had previously owned the vehicle).

When he got in touch with the dealer who had put the car into the auction, says Arden, 'he laughed in my face, and said that the public shouldn't be allowed to bid there.' Today, despite complaining to the auction and to a local-authority consumer protection office, and briefing a solicitor, Arden remains uncertain of getting his money back.

In Lancashire, a K-registered Ford Cortina 1300 was recently rolled into an auction hall and knocked down for . . . just £310. *Pushed* in, more accurately, because it wouldn't start. A sorry entrance that, combined with high recorded mileage, an almost-run-out

'GLASGOW' BELONGS TO . . . ?

Cynically, the villains in the auction business regard the Society of Motor Auctions' proposed 'code of practice' as . . . a 'Glasgow face'—slang, in this context, for a thin veneer of respectability. *Can it in fact be more?*

Under the code, auctions affiliated to the SMA will, among other things, be required to allow purchasers to cancel a sale, or negotiate an allowance with a vendor, if he has given a false description of a car's condition. That is providing the vehicle is returned within a couple of hours or so of the sale in the event of serious mechanical failure, or 2–3 days in the case of a major chassis defect.

The complaint must be upheld by the auction's resident engineer, and any refund will apply only if the vehicle has been sold for a certain price or more. Auctions will also have to guarantee a full refund if a car turns out to have been stolen or is still the subject of a hire-purchase agreement.

Consumer-protection and a new image

MoT, areas of body-filler and obvious rusting ensured the low price for this usually-popular model.

In fact, there was very little wrong with the car. The successful bidder—a member of the influential Liverpool ring—had, in fact, *with the knowledge of the auction* sprayed-on simulated corrosion from an aerosol can, applied the unrequired filler and swapped batteries.

A few days later, having made good his handiwork, wound back the odometer to a respectable 52,000 miles and falsely obtained a fresh MoT certificate, he put the car in at another auction where it fetched £585. He finished £225 richer, after paying the first auction £50.

Over the years, the public has learned the

for the auctions may be the main reason for the code, but there are also strong commercial pressures, not least the fall-off in both the quality and number of vehicles coming into the sales halls. Company-fleet cars have always been the mainstay of the business, but, as DRIVE showed in its last issue, companies are having to run their vehicles for longer than they wish because of replacement-delivery problems, and this increase in mileage and use is seriously affecting availability, condition and value in the car auctions.

The public, too, has been holding on to cars for longer. But now, with more money about, there are signs that many motorists will again be in the secondhand market soon.

The auctions understandably want to cash in. They want to attract more private sellers, and are attempting to do so not just with the code but by inviting consideration of the advantages of auction-trading—money within four days, no time-wasting private viewers and rubber cheques, maybe an improvement on part-exchange allowances.

hard way not to do business with shady car dealers operating from spare lots and run-down shops. What it hasn't realised is that many of these men have now moved into the auction halls.

One of London's most powerful rings includes two characters known as The Nodder and The Shaker. The former is the star turn whenever one of the ring's own cars comes up for sale, examining it carefully for the benefit of onlookers and nodding enthusiastically all the while, then getting the bidding going.

The Shaker, obviously, does just the opposite, wearily shaking his head over the 'faults' he finds in other cars, and frequently saying, loudly: 'Only a fool would buy this one.' But it's a safe bet

DON'T GET MUGGED

The boss of a Liverpool car-theft gang, which also dabbles in auctions, says: 'Mugs are obvious, even in a crowd. Look close, and you can almost see the handles on 'em.'

Don't be one of them. And don't waste your time there if you see that the tell-tales that mark out an *honest* auction are missing.

For example, the conditions governing buying and selling should be prominently displayed or, better still, contained in pamphlets to which the public has easy access.

Read them thoroughly, in particular looking for details of warranty arrangements and for conditions governing vehicles sold 'as seen'. A so-called Clean Title Protection insurance should also be available (inexpensively) to guarantee a full purchase-price refund if a vehicle is subsequently found to be stolen or the subject of an HP agreement.

Beyond this, look out for yourself and (sad but true) be prepared to trust no one—least of all the auctioneers.

The public tends to believe everything they say, thinking them to be qualified professionals. They're not: there is no such thing as a chartered auctioneer.

When a DRIVE investigator posed as a potential vendor at a South Coast auction, an auctioneer suggested that the best time to sell was Monday night. 'The public comes along in force then,' he said, 'and they bid more than the dealers.' Yet a regular trader

at the same auction said that prices were higher on Thursday afternoons.

The only way to discover is to find out for yourself—by visiting the auction before you jump in, comparing times and prices and keeping your eyes open to what is going on.

If you're buying, take with you someone who really knows about cars: dealers prefer mugs with a little knowledge to innocents who have no idea. 'They think they know it all, and have complete faith in their own judgment,' says a regular auction trader. 'They're easily duped.'

When bidding, don't make it painfully obvious that you are after a certain model, or even that you're a private buyer. Dress as the dealers do—wear a sheepskin jacket, preferably soiled, or shirtsleeves; decide what you want to pay and don't exceed it.

Other points to watch . . .

The start-off bid can provide a valuable clue to the activities of a ring. If unusually high, it may well be one of its own cars. If unusually low (and other bidding follows this pattern), the ring may have decided that the vehicle is a bargain.

Beware conversations with strangers, particularly those that begin 'What are you looking for, mate?' and are followed by the advice that *he* knows just the car that *you* want. All too often, it turns out to be his, or a friend's.

Be wary, too, of over-acting by traders when examining a car. It could be a performance staged for your benefit.

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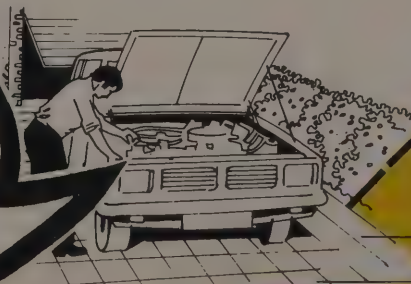
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that the fool who finally clinches the sales is a friend of The Shaker!

At another auction, where remnants of the Kray gang operate, cars are 'doctored' so that they sound rough or have to be helped into the sales hall. A former employee at a South Coast auction, who drove the cars to and from the bidding rostrum, says: 'I made a fair bit just for keeping a light foot on the accelerator to keep the big-ends quiet.'

DRIVE knows, following its MoT investigation in January, how comparatively easy it is for false test certificates to be obtained. And they were again in evidence at the auctions: on the South Coast, for instance, an H-registered Renault 4 boasted almost a full year's MoT, encouraging the auctioneer to bray: 'You can drive this one away!'

The buyer who did that risked a fine

and an endorsement, for an AA engineer found 'rust penetration and weakening near the rear offside radius-arm and torsion-bar mountings' and serious underfloor and sill corrosion...

As things stand—whatever the good intentions of the SMA's 'code of practice', detailed on page 46—it seems clear that the private buyer doesn't stand much chance of finding a 'bargain' at the crooked auctions.

He goes believing that every car to come under the hammer must have a good price because, in many instances, it will be taken out by dealers and sold again at a profit. He joins the bidding, complimenting himself on cutting out the middle-man. But, all too often, the unwelcome truth is that he's spotted as a mug—and ends up buying over the odds,

or cleverly stuck with a car that none of the professionals want.

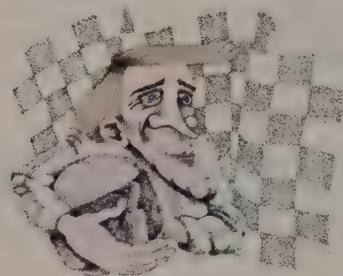
Make no mistake: DRIVE welcomes the attempt of the honest auctions to bring in their code. It wishes them success. But it believes that, if the public is to have *real* confidence in the fall of the hammer...

● Auctions and auctioneers must be officially registered—a move that, in the event of proven malpractice, could result in licences being withdrawn

● Auctions should be required to conduct, and publish, the results of searching MoT-style inspections on all cars offered for sale—and stand by their verdicts

● There must be a sharp increase in the number of consumer protection officers, to keep a far closer eye on car auction business.

It's the only way to stop the villains spooning-up the Mug's Sugar...



MOTOR SPORT Meet your makers

IN GRAND PRIX racing, there is only a fine line between success and survival—not only for the drivers, but for the car builders, too.

Success, for the drivers, is easy to see—the good ones earn the adulation of a large public, enjoy a fine, freewheeling lifestyle and make enough money to become tax exiles. But their record of survival is grim. Ten years ago, there were 24 drivers competing in the world championship series. Not one of them is still racing today. And eight are dead; among them Graham Hill, Jim Clark, Jo Siffert.

The builders of Grand Prix cars have fared rather better. In 10 years, only four out of nine have gone to the wall. But the collapse of a constructor is far less dramatic than the death of a driver. Constructors just fade away. The most spectacular of the four failures of the decade was Cooper. Cooper was once a trendsetter in design, but its later cars were ungainly and unreliable and it is perhaps now best-remembered only for putting the 'Coo' into Mini-Cooper.

Honda, the Japanese giant, made an impressive and well-financed foray, produced some good results and then came up with a radical new car powered by an air-cooled V8 engine for the French GP of 1968. Star drivers pronounced it undriveable and suggested it be left in the pits. French veteran Jo Schlesler ignored them—and perished in a horrendous fiery crash before the race was four laps old. At the end of the season Honda packed up.

Eagle was the brainchild of one ambitious man, American Dan Gurney. A former journeyman driver, he not only built his own car but created an engine as well. But the results were unspectacular, and, in the best tradition of this curious form of showbusiness,

Gurney crated everything up and went back to the States to retire from active racing.

BRM was the longest-running act in the sport, with 25 years on the grids. Originally great and successful, it went into a dramatic decline a few years ago. Despite bold promises, it found itself in a position where no driver of repute would sit in its cars. Its efforts produced more laughs than results, and, in the middle of the 1977 season, it quietly went.

Today, there are 12 GP constructors who can be taken seriously. Several others have made headlines over the last 10 years (notably Lord Hesketh), but they are no longer serious.

What is interesting is that nine of the survivors are headed by former racing drivers. The non-racers are Renault; Ligier—a former French rugby international-cum-car freak who built up over the years with sponsorship from French nationalised industry; and Australian-born Canadian Walter Wolf.

The rest of today's successful car constructors all have a successful racer in the driving seat. In alphabetical order, they are:

Arrow A brand-new team created by Jack Oliver, a chipper East Londoner who was a Lotus driver on the Formula 1 grids in 1968. He survived a Formula 1 career without ever winning a Grand Prix, and is now the joint owner of Arrow. He and his crew set a record by creating a new company, founding a factory, building a car in 59 days, and getting it to South America in time for this year's Brazilian Grand Prix. And it finished, too!

Brabham Founded by Australian Jack Brabham but now owned by Bernard Ecclestone. Ecclestone was another of the tiny 500cc Formula 3 racers of the mid-fifties, successful but not outstanding. Then he left racing and became a property tycoon, returning in the mid-sixties as friend and manager of the late Jochen Rindt. When Brabham retired to Australia, Ecclestone bought his operation and, with his tremendous energy, breathed new life into the team.

Ensign A tiny Midlands firm run by Maurice Nunn and his wife. He was a Lotus Formula 3 driver, and after building his own F3 car he graduated into the ranks of Grand Prix (originally with finance from playboy driver Rikki von Opel). Ensign's sound engineering builds a good car, but it's hampered by lack of finance and quality drivers. Scored points in six of the 17 events last season. Shows lots of promise.

Ferrari Enzo Ferrari and his company are part of motoring folklore. But, though he was a racer, he never raced his own cars. In his com-

petition days he drove the great Alfa-Romeos.

Lotus Colin Chapman raced Formula 1 Vanwalls and Jaguar saloon cars back in the fifties. He began making scrubby little kit cars in a lock-up garage in North London and today has five world championship titles to his name. One of the few all-rounders—driver, designer and businessman (chairman of Lotus Motors)—whose combined talents have made him a millionaire.

McLaren Founded by the popular New Zealander Bruce McLaren. He was driving for Cooper, saw the Cooper collapse coming and got out. He had great success as a constructor, until he was killed in a testing accident at Goodwood in 1970. The team is now owned and run by Bruce McLaren's former partner, American tax lawyer Teddy Mayer. McLaren cars now win world championships with Hunt and Fittipaldi driving.

Surtees Former world championship motorcyclist John Surtees made an easy transition from two to four wheels in the mid-sixties. Outspoken and often labelled as difficult to work with, he ran through series of drives with Lola, Honda and BRM before setting up his own team following a stormy walk-out from Ferrari. Some say he had to go it alone, since there was nowhere else for him to go as a hired hand. Success has so far escaped him as constructor, but he's a dogged trier.

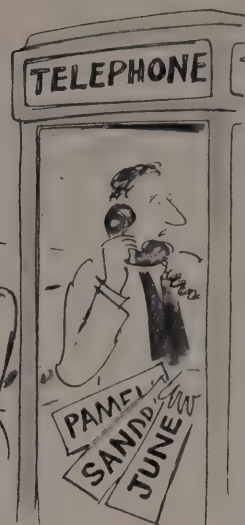
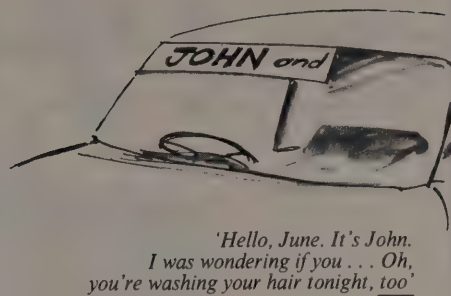
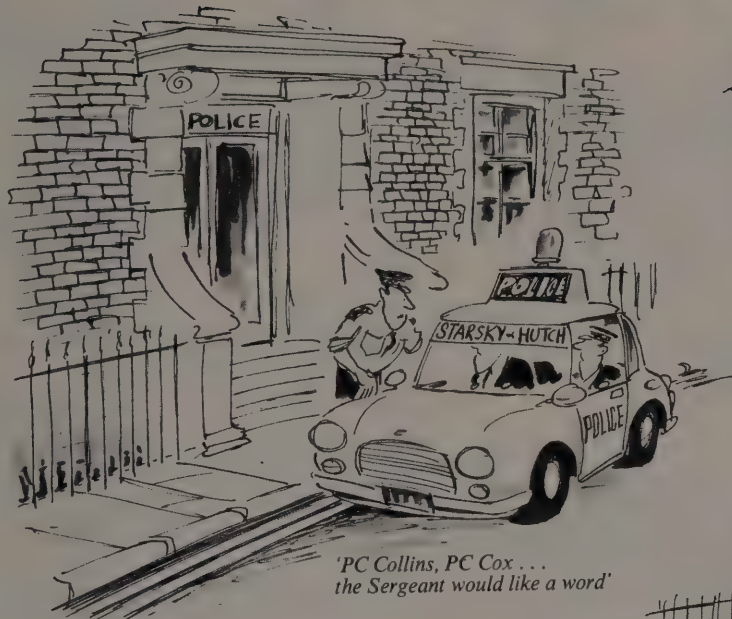
Tyrrell Ken Tyrrell has been world champion constructor three times. The toothy former timber merchant raced cigar-tube Formula 3 cars back in 1952, but quickly came to the conclusion that he wasn't a born racing driver and settled for becoming a car owner and entrant. Through the sixties, he ran Formula Junior cars. He spotted Jackie Stewart as a cub driver and together they grew into Formula 1, running Matra and March cars before building his own F1 car in 1970. Outspoken and justifiably opinionated, Ken Tyrrell is one of the front-running racing establishments.

Williams A Formula Junior racer from the days when you'd load a car on a trailer and do six Continental races in as many weeks while living on your prize purse, Frank Williams became a Grand Prix entrant in 1968. (Piers Courage was his driver.) Now, from a small Berkshire factory, Williams produces his own car and has generous financial backing from Saudi Arabian Airlines. Australian Alan Jones drives for him. After a decade of scratching around and never quite getting the act right, 1979 could be Williams' big year.

NICK BRITTON

Name game

by
NOEL FORD



IT'S A MOTORIST'S dream—a fairy god-mother appearing with £2000 and an invitation to make a selection from Britain's used-car showrooms.

True, it was all in the mind; but just for a day **DRIVE** played the good-fairy role with five readers, turning them loose with a notional wad of fivers to see what £2000 bargains were waiting on the secondhand-car dealers' lots around the country, then asking AA engineers to cast an expert eye over what each reader chose.

You might think that you can't go far wrong by picking a car in the first 12 months of its life . . . but even new cars can have a crash in their past, like the Mazda 818 chosen by Belfast journalist Renee McRandal. Having owned a 1litre Mazda for two trouble-free years, Mrs McRandal was influenced strongly by brand loyalty—and also fell for a very smooth line of sales patter.

Brighton hospital technician Mike Sanderson, on the other hand, picked the only British car in the bunch—a 1973 Ford Granada automatic that was showing its age. He spotted none of the faults pounced on by the AA's engineer, such as the leaking power-steering system.

But our three other buyers were luckier . . .

FORD GRANADA 2500GXL

Mike Sanderson, 38, tried to get the most out of **DRIVE**'s £2000 budget by buying a big, ageing, 1973 Granada automatic for £1300, leaving him £700 change. But after reading the AA report, he wishes he'd 'spent' the extra money on 'his' car.

'My first choice would have been a Morris Marina 1.8 at £1880,' says Mike, 'but, when I asked for an AA inspection, the dealer said there was nothing wrong with any of his cars and rudely showed me to the door. Exactly the same happened when I looked at a 1975 Datsun—£1850 at another garage.'

'The Granada salesman, on the other hand, drew my attention to an "AA

many advantages in the way of first-class raw materials—Angus beef, Welsh and Kentish lamb, excellent freshwater fish, seafood, shellfish, superb vegetables, dairy produce, game, bacon, ham, poultry, eggs and cheeses—that it needs only good, honest cooking to do justice to them. But too many chefs and cooks don't really enjoy what they are doing, or even take pride in what is one of man's most noble callings.

I visit the kitchens of many hotels and restaurants and see kitchen staff at work, and it is sometimes enough only to look at the bored face of a cook to predict the poor quality of the meal he is preparing.

Cooking is a physically demanding job. It is carried out on one's feet, on a hard floor in kitchens that are, mostly, by force of

circumstance, overheated, noisy, relatively dangerous and uncomfortable. To work there, one must be dedicated, there are many easier, better-paid jobs to be found.

I recall an hotel in Wales where the chef walked out on Good Friday, the day on which the hotel opened for the season. The proprietor—an accountant—solved the problem by pushing the hotel plumber into the kitchen.

This was in the days before convenience or deep-frozen foods, and the plumber swiftly developed his own techniques: chickens, for example, were delivered to the hotel on Monday afternoon, went straight into the oven, then, after an hour or two, transferred to the cold room to be served up in various guises for the rest of the week—generally in thick gravy.

When, after a few months, the

plumbing in the ancient building became a greater and even more urgent problem than the cooking, the 'chef' was returned to his old duties. But by that time the damage was done: at the end of the season, the hotel was defunct.

I'd like to think it was because of the standard of its kitchen. But that would presuppose that fewer and fewer people wanted to eat there. Alas, judging from the standards of some flourishing 'eateries', it needs a lot worse than bad food to put a British restaurateur out of business . . .

But here are two good ones:

XXX

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inspection welcome" sign on the wall. I really liked the car, too. I looked under it and over it, and everything seemed to be in good condition. I was impressed by the level of comfort and the ease with which the car started up. And being a lazy driver, I rather fancied an automatic . . .

Second opinion

'This car shows significant deterioration,' said the AA inspector, 'but not entirely out of line with others of similar age and type. The asking price of £1395 is below average . . . but that's for a car in good average condition.'

Starting with a stiff door lock, he moved on to scratches on the windscreen—bad enough to call for a new glass—a broken sunroof handle, stiff boot lock, missing bumper bolts, a torn driver's seat and a damaged door pull. Door sills were rusted, and the bodywork was beginning to look shabby.

Under the bonnet lurked several existing and potential problems, including a worn throttle cable and badly adjusted auto-box kickdown cable. Worst of all, the plastic/metal fuel pipe to the carburettor was badly deteriorated—a potentially lethal fault. General performance was below par.

The Granada had even-more-serious problems with its tyres—four non-standard Pirelli 185/70 R14 'seconds'. And the spare was a different size—A Uniroyal 175/70 SR14.

The fluid level for the power steering was very low and fouled—a sign of neglect; there was also excessive vibration. The automatic gearbox was in bad shape: apart from that kickdown cable, there were assorted leaks and too much vibration—especially in second gear.

Add to that the scoring on the brake pads and too much play at the brake pedal, and this was a car that could, in the end, become a rather expensive liability.

MAZDA 818

'I haven't a clue about cars,' admits Renee McRandal, a 44-year-old Belfast mother

of four. 'I have to depend on honest car salesmen . . . and I'm not sure that there are many left.

'I never enjoyed driving until I bought my Mazda 1000, two years ago. That's probably why my attention was caught by another Mazda—the 1300cc 818. All the other suitable cars advertised in my paper seemed to cost more than £3000, but the Mazda—only a few months old—was £2195. And when I went to see it, the salesman agreed to knock off the odd £95 for cash.

'I wandered round other garages, and two Vauxhall Chevettes appealed. I liked their styling, but on price and condition they didn't match the Mazda.'

Mrs McRandal did see some scratches round the Mazda's boot. 'I wondered why such a new car should be up for sale, and I asked if it had been in a crash. The dealer explained at great length that the previous owner had a crippled mother, and that the scratches had been caused by putting a wheelchair into the boot. He even shouted across to one of his showroom mates to verify the yarn . . .'

Second opinion

The bright-red Mazda 818 with only 7443 miles on the clock turned out to be what traders call 'a dog'. Said the AA inspector: 'There is evidence of extensive accident damage reinstatement to both rear wings, boot lid, rear valance, boot floor and roof. In parts, repairs are of poor quality, with evidence of structural defects.'

The rear suspension was misaligned, and a distorted chassis meant that the wheelbase was $\frac{1}{2}$ in longer on one side than on the other. Rear-end trim strips had been replaced at different heights, a chrome strip was missing from the roof gutter, and the resprayed panel had 'poor lustre'.

He could find nothing wrong with the spare wheel—but that was because he couldn't find it!

'The asking price of £2195 is about £185 over the top, trade-guide price, but it is typical of Ulster prices today,' commented the inspector. 'In this case,' he added with

restraint, 'the vehicle condition does not warrant the price asked.'

RENAULT 12

Marion Watson, a 32-year-old teacher and mother of three, found salesmen clamouring for deposits almost before she got a foot over the garage doorsteps. But she refused to be bullied.

'My husband doesn't drive, so I am the "taxi-driver" in our family,' she says. 'I use our six-year-old Renault 4 to carry the children on local trips, for work and for our annual holiday in Cornwall.'

She searched the Beckenham, Kent, area for a £2000 secondhand car big enough to accommodate her growing family, ruling out an estate on the grounds that 'they're all too noisy' and that everything in the back is on view to thieves.

'I tried to be unbiased in my choice, but I'm fond of foreign cars,' she says. 'I've had good service from my Renault, so I suppose it was inevitable that I should fall for another: my first choice was a £2100 P-registered Renault 12 with only 8551 miles on the clock. It seemed in excellent condition—no scratches, dents or rust.

'I enjoyed my test drive, found no problems and thought it good value for money. The garage offered a 12-month guarantee on parts, and, for an extra £26, operated a recovery service with three days' free self-drive hire when the car was in for repair.

'The salesman tried to persuade me to sign a "conditional on inspection" agreement, which meant that the car would be held until my purchase. But I refused, and he still allowed the AA inspection.

'My second choice, elsewhere, was an N-registered Volkswagen Passat at £1895 with 22,700 miles recorded. I found some dents, even though it appeared to have been well-maintained by its one owner. It was appealingly different to drive, but, oddly, this garage wouldn't allow an inspection.'

Second opinion

No doubt about it—Mrs Watson picked the cream of DRIVE's £2000 crop, with only



'This'll do. It's only got a 2-vomit rating'

restaurant just off the Strand was saved from extinction during the demolition of Covent Garden only by a petition from its incredibly large, faithful band of regular customers. Rules perpetuates all the graciousness of Edwardian life—in decor, service and menu.

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Priory Hotel Restaurant

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(tel Bath 21887)

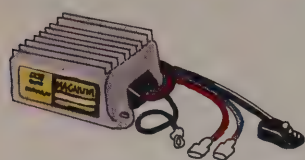
John and Thea Dupays came into the hotel and restaurant business almost by accident, and still look on themselves as amateurs. But the dishes served in their elegant,

countryhouse-style restaurant bely this: Bob Harrison, 24, trained at London's Gavroche, runs the kitchen and, on my last visit, he produced a smoked had-dock roulade filled with a blend of mayonnaise and hard-boiled egg that was a delight, a tarragon and cream sauce to accompany succulent roast chicken, and a crème brûlée that were second to none. Lunch for two from £8; dinner for two from £13; wine from £3.

ROBIN WILLS

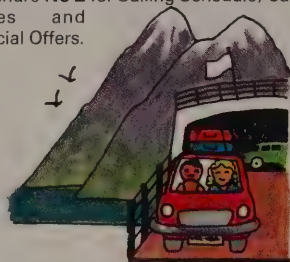
Robin Wills is the AA's chief hotels inspector—an iron-digestion veteran of every kind of eating house in the kingdom. But why don't YOU write and tell DRIVE about good, and bad, experiences at home and abroad? We'll publish a selection of letters—and pay £5 for the best.

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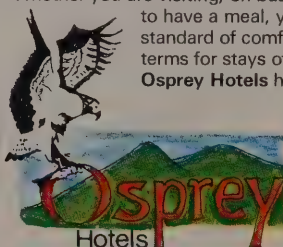
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If a mail order trader fails, readers are advised to lodge a claim with this magazine within 3 months from the date of the appearance of the advertisement. Claims received after 3 months will be considered at the discretion of the publishers.

*For the purpose of this Scheme, mail order advertising is defined as: 'Direct response advertisements, display or postal bargains where cash has to be sent in advance of goods being received'.

a small oil leak and a loose interior mirror on the Renault to worry the AA inspector. 'The overall condition of the vehicle is sound and commensurate with its age and indicated service . . . The asking price is average,' he said, approvingly.

The bodywork was in above-average condition, though there were a few minor and isolated marks and paint chips. The engine oil was slightly discoloured, but there were only characteristic seepages to be seen—apart from one 'generally oil-fouled' area on the engine block.

There were no problems at all with the fuel system or electrics, and the tyres were first-rate Michelin radials. Steering and front-suspension checks revealed nothing amiss, and the underbody was in sound condition and well protected. In short, it was a winner!

FIAT 127 1050CL

Chartered engineer James Tait, 51, from Choppington, Northumberland, found his £2000 car by thumbing through back-numbers of his local newspaper. He tells *DRIVE*: 'If you go round the garages with a fistful of fivers, you simply play straight into the waiting hands of any experienced car salesman.'

Tait runs a 1974 Ford Escort, but decided that the car to be 'bought' this time had to be a nearly-new, front-wheel-drive model. 'I'm only 5ft 6in tall, so I didn't want anything too large or unwieldy. I

thought a Fiat 128 or a 127 would be the answer, or possibly even a Citroen.

'That's the way it turned out. My first choice was a Fiat 127 1050CL advertised for £2195, though the salesman said he'd let me have it for £2050. It was an S-registered, ex-demonstration car. And, being so new, it just had to be in good condition—there were no visible dents or scratches.

'I liked the plastic wheelarch liners—a good anti-rust device—and the automatic choke. The inside looked grubby, but that didn't seem important.

'I went along to a Citroen dealer on the off-chance, and found an R-registered Citroen GS Club estate at £2750—but the salesman refused to budge on the price.'

Second opinion

Tait's Fiat 127 was described by the AA's man as 'an average example of the model' needing only one essential repair—a radiator leak. The tailgate lock was stiff to open, and the inspector noted that the tailgate had been resprayed; no evidence, though, of crash damage.

Coolant was leaking from the rear of the water pump and the cylinder-head area was oil-fouled; no problems with the fuel system or electrics, but there was minor rim damage on the front offside wheel; tread on the front nearside was down to 3mm—the engineer recommended a 'change round'.

Steering and suspension were fine, though our expert was unimpressed by

Fiat's 'minimal' underbody protection. Exhaust, clutch, gearbox and transmission were all serviceable, but the brakes needed attention: the front caliper assemblies were dirty and oil-fouled, and there was a minor 'weep' on the rear restrictor valve.

The car was fitted with a radio/tape player but it was not mounted too well and the speakers were loose. All in all, Mr Tait's find was worth its price, and justified his faith in his ability to pick a car.

RENAULT 5

Teachers' union official Denis Sullivan, 33, from Cumbernauld, Dunbartonshire, needs a car that is reliable, small, cheap . . . yet roomy enough for a family of five. He bought his present car—a Honda Civic—two years ago, and in that time he has clocked up 62,000 trouble-free miles. His wife Ellen runs a Fiat 500, and Sullivan says they are forever carting bikes to Grannie's so that the children can cycle home from there.

He comments: 'When I bought the Honda, I rather fancied a Renault 5, but a £300 price difference decided me against it. After studying the form, I set out to look for a Renault 5, a Fiat 127 or a Ford Fiesta. Finally, I settled on a 1977 Renault 5 with 8000 miles on the clock, priced at £2195. After some bargaining, the salesman agreed to drop £100, but what really convinced me was the two-year guarantee

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on parts and labour that went with the car. 'It was an ex-demonstrator and had obviously been well maintained—although I felt that it might need a new clutch: it must have had an awful lot of drivers . . .

'I did see a Fiat 127, too. I've driven Fiats in the past and, quite frankly, they haven't impressed me with their spartan interiors—I spend a lot of time in my car, so I need comfort round me. But the 1977 model that I tried was impressive. In fact, I found it difficult to choose between that and the Renault; the clincher was the Renault's guarantee.

'I looked at a £2295 Ford Fiesta with 9000 miles clocked up, but I found it too "bland". I didn't *dislike* anything, but there wasn't much that I *did* like.'

Second opinion

Our engineer found 13 points that required attention on the Renault, but he still reported the car's general condition as good. The asking price was considered high, although the mileage was low.

The driver's door lock needed adjustment, and there were small chips in the paintwork on the sills. Light scratches were found on the front offside and rear nearside wings. There was a small dent on the driver's door, and a hubcap was scratched.

A general lack of engine-power indicated the need for tuning, and the engine oil needed topping up; it was also leaking from the filter. The idling speed was high; the battery clamp was insecure; and the interior light didn't work.

The tyres looked good at first sight, but

closer inspection showed that the front nearside had a nasty cut in the outer wall. All the valve caps were missing and—unforgivably—there was no spare wheel.

Steering, suspension, underbody, exhaust, clutch, gearbox and transmission were all satisfactory, but the brake check revealed that, as well as a squeal from the

front pads, the handbrake had too much travel and the hydraulic fluid level needed topping-up.

'But that's all nitpicking, isn't it?' says Sullivan. 'A good service and £30 or so would put it all right. As for the price being high—well, I'd buy it . . . if you gave me that £2000.'

ROBERT OXFORD

£2000 SPOT CHECKS

With even the cheapest Mini costing £2000, you don't, these days, get a lot of new car for that sort of money. On the other hand, there are plenty of big-car bargains on the market—although the less you pay for a once-expensive model, the more chance there is of ending up with problems.

What problems should secondhand-car buyers with £2000 to spend look out for? Well, it will certainly buy a big automatic Ford Granada, but expect it to be a high-mileage five-year-old. Automatic gearboxes last well and give the transmission an easy time, so there are no clutch or synchromesh problems to worry about. But they are more expensive to repair if things *do* go wrong. Oil leaks, damper, steering and tyre wear are likely, as is a deteriorated exhaust system. Rust, too, could be a problem.

Big-car buyers should watch, too, for the tell-tale signs of an ex-company car: scratches around the boot lid and lock (indicating a lot of load-carrying), soft rear suspension (ditto), a worn pedal rubber or much-used front seat, and, of course, high mileage.

These, however, are all signs of the ex-sales rep's hack; an ex-company director's car—chauffeur-maintained, perhaps—is not necessarily a bad thing at all.

So, before buying a big 'oldie', consider its overall running costs, and ask yourself if you

really need all the space it offers. Big isn't always beautiful; it can pay to think small.

At the little end of the market, things look a lot rosier. The two super-minis—the softly-softly Renault 5 and quicksilver Fiat 127—are likely to be in much better shape—almost 'as new' under 10,000 miles, with rust only from unattended stone chips. Drive-shaft wear should be at least another 20,000 miles away, and the exhaust systems should show no corrosion.

Oil and water-tight as yet, the 127's rather noisy engine won't have taken on its characteristic 'tappety-ness'—often apparent on high-milers. As with the Renault 5, synchromesh should be checked for wear, but harsh clutch action, due to cable friction, probably won't be noticeable yet.

The reliable Renault 12 and Mazda 818—perhaps a year or two older, with maybe 20,000 miles on the clock—should be in almost as good condition. Again, no serious rusting, although it's as well to check around the Mazda's brightwork and boot and door edges, where corrosion can occur. And 'gravel-rash' may already be a blight on the Renault's rear wings, behind the wheels. The 818's MacPherson front struts will not yet be showing signs of oil seepages, and the 12's rocker cover should be similarly oil-tight. The Renault's drive-shafts will doubtless be free of the kind of noises that can start at around 35,000 miles.



J BULL'S FIRST CAR

American dream

OF KATHARINE WHITEHORN

MY first car was actually only half a car: I owned it jointly with a boyfriend, who always insisted it was my half that was in trouble when something went wrong.

It was a big, black, battered, ugly Buick, and maybe we hadn't paid enough for it—two hundred dollars—but it did us proud. We used it to cross the US—sponging off friends of friends here, doing a few days' work there.

The main thing I remember about the car was that it was enormous. I could lie on the front seat with my head in the driver's lap—and often did, which strikes me as dangerous now, but did seem a good idea at the time.

By the time we got to Aspen,

Colorado (this was before Aspen got chic) the car had developed a leaky radiator which, for some reason, was very awkward to refill. I found, however, that I could drive it the quarter mile to my early-morning job (cooking breakfasts in a bowling-alley coffee shop) without it overheating, and the boyfriend would come along later in the day and deal with it.

He was hurling cement about for a firm that made swimming pools (including Liberace's piano-shaped one), and, when he got the day off, I would go sick, crouch down on the capacious floor of the Buick as we passed the bowling alley, and go fishing.

High in the craggy Colorado mountains was a paradise for trout—but it was also the scene of the nastiest bit of turning I've ever done in my life. A storm was coming up, and it wasn't wise to be caught up there.

'Go and get the car,' said my bloke, and I had the cheerful task—as the thunder gathered overhead—of turning it round on an almost single-track road, with a high cliff above me and a sheer drop below.

That taught me the great principle, now enshrined in Whitehorn's Third Law: you can turn

any car in any space if you're not proud about how many turns it takes. About 16, that time.

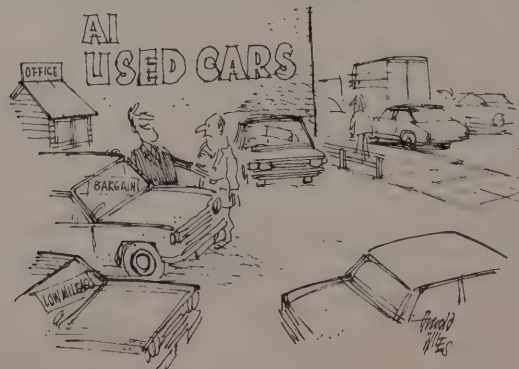
We didn't get the radiator mended because we'd have had to pay out more than the car was worth. It was a sound economic policy, but hard on the nerves when crossing Utah's Great Salt Desert and having to stop every few miles for the thing to cool down; far from being disgusted at the litter, one was only too happy to see a few cans along the roadside to show that a few human beings did—even occasionally—pass that way.

When we got to California, the car's brakes failed, which was

even more unnerving; however, they somehow 'put themselves right again', a miracle which has left me with the abiding (and, my husband says, deplorable) feeling that a lot of car troubles will cure themselves if only you don't *fuss*.

And the policy can't have been a totally bad one, for, when we finally took our black Buick to the knacker's yard, the man offered us a hundred dollars for it. A hundred! We were overjoyed; we were rich. We said we'd turn it in tomorrow; on its last evening, for a treat, we took it to a drive-in movie.

It liked that.



'Your car has the benefit of our extensive warranty, which lasts one year or the length of our forecourt—whichever comes first'

New cars displayed for sale must now carry labels showing the official fuel consumption figures

Until now it's been very difficult to compare the fuel consumption figures claimed by manufacturers, because they may have tested their cars in different ways.

Now new cars have to undergo the same Government approved test. So for the first time the figures will be truly comparable.

Dealers must ensure that new cars displayed for sale carry a label showing the official fuel consumption figures for that model. Look for the label if you're thinking of buying a new car.

Fuel consumption may be only one of the things you consider when buying a new car. But today, with petrol costs as high as they are, it's just as well for you to know the facts.

To enable you to make immediate comparisons we have printed on the following pages the officially approved fuel consumption test results recorded by the Department of Energy up to mid-January 1978.

Your local dealer must have details of these test results available in his showroom for you to consult on request.

The official tests are carried out in approved laboratories or on test tracks. They have been designed to be representative of real-life driving situations and the results achieved provide a guide to the models which are likely to be more economical in their fuel use.

The test results do not guarantee the fuel consumption of any particular car. Each new car has not itself been tested and there will inevitably be differences between cars of the same model. The driver's style, the loading of the car, road, weather and traffic conditions, the overall mileage of the car and its standard of maintenance will all affect its fuel consumption.

For all these reasons the fuel consumption achieved on the road will not necessarily accord with the tests results.

Are all models included in the list?

Almost all types of new passenger cars are covered by the tests. Certain types are, however, excluded and these are given at the end of this list. In addition a small number of manufacturers and importers have been granted exemption from testing because of the low volume of production involved.

What are the standard tests?

The tests follow an internationally agreed procedure and consist of two compulsory parts:

- a cycle simulating urban driving, and
- a constant speed test at 56 mph (90 km/h).

In addition there is an optional test:

- a constant speed test at 75 mph (120 km/h).

Urban test cycle

The urban test cycle is carried out in a laboratory where equipment simulates the loads experienced under normal

driving conditions and the standard patterns of urban driving.

The car is driven from a fully warmed-up start and is taken through a cycle of acceleration, deceleration and idling with a maximum speed not exceeding 31 mph (50 km/h).

Constant speed test

The constant speed test at 56 mph (90 km/h) is intended to be representative of open road driving. It may be carried out in the laboratory or on a test track (under very good road and weather conditions).

Optional constant speed test

This test is carried out at 75 mph (120 km/h) in a laboratory or on a test track. Although it is recognised that this test exceeds the UK maximum speed limit, it is included to illustrate to car drivers the worsening fuel consumption at higher speeds. It may also be useful to manufacturers exporting to some parts of Europe where speed limits are higher.

Only one production car is tested as a representative of each model. It must have been run in and have been driven for at least 1800 miles (3000 km) before testing.

In some cases several models, which do not differ significantly in certain technical characteristics thought to be important in determining fuel consumption, may be grouped together into a 'class'. Only one car in the class needs to be tested.

Who does the testing?

The responsibility for testing lies with the manufacturers and importers themselves. They must either carry out the tests themselves or arrange for them to be carried out on their behalf. Department of Energy officials have the right to inspect the test laboratories and to witness tests in progress to ensure that they are being carried out correctly.

Manufacturers must submit their fuel consumption test results to the Department of Energy who record the results in an official fuel economy certificate.

This list contains all such results recorded by the Department by mid-January 1978. It is expected that up-dated editions will be issued at six-monthly intervals.

Penalties

Failure to comply with either of the requirements concerning fuel consumption labels on new cars on display or the availability to potential buyers of details of fuel consumption tests listed in the following pages makes dealers liable on conviction to a fine of up to £400.

The same penalty exists for anyone who does not include the test results in promotional literature in which reference is made to the petrol consumption of a new car.

ISSUED BY DEPARTMENT OF ENERGY

How to use the list

Models are listed under the name of the manufacturer or importer. The test results are given in two sets of units, one in imperial units (mpg) and the other in metric units (litres/100km).

Where cars do not differ substantially in technical characteristics they have been grouped together into a 'class' and bracketed in the list. Only one set of results has been entered as representative of the class.

In every case urban cycle and 56 mph (90 km/h) figures are given. In addition, results of the optional 75 mph (120 km/h) test are given where appropriate.

Key

M — Manual A — Automatic OD — Overdrive mpg — miles per imperial gallon l/100km — litres per 100 kilometres
mph — miles per hour km/h — kilometres per hour.

Manufacturer/Model		Trans- mission	Imperial mpg			Metric l/100 km		
			Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
ALFA-ROMEO								
Alfasud								
901.03	5m 1200	M	27.7	44.1	32.5	10.2	6.4	8.7
901.51	5m Super 1300	M	27.4	40.3	29.1	10.3	7.0	9.7
901.31	Ti 1200	M	26.6	43.4	32.1	10.6	6.5	8.8
901.59	Ti 1300	M	28.2	45.6	32.5	10.0	6.2	8.7
902.01	Sprint	M	28.2	42.8	32.5	10.0	6.6	8.7
Alfetta								
116.56	2000 Saloon	M	19.5	34.4	28.5	14.5	8.2	9.9
116.05	GT 1.6	M	22.2	33.2	26.9	12.7	8.5	10.5
116.37	GTV 2000	M	19.5	35.3	28.5	14.5	8.0	9.9
Spider Convertible								
105.27	2000 Spider	M	19.7	31.4	25.7	14.3	9.0	11.0
BMW								
316 Saloon	M	24.1	35.3	25.5	11.7	8.0	11.1	
320 Saloon	M	19.6	31.7	24.8	14.4	8.9	11.4	
320 Saloon	A	20.2	31.7	23.7	14.0	8.9	11.9	
518 Saloon	M	19.2	36.2	25.7	14.7	7.8	11.0	
518A Saloon	A	22.8	31.0	24.8	12.4	9.1	11.4	
520 Saloon	M	19.0	30.4	26.7	14.9	9.3	10.6	
520 Saloon	A	19.5	31.7	23.9	14.5	8.9	11.8	
525 Saloon	M	19.9	33.6	25.0	14.2	8.4	11.3	
525 Saloon	A	20.8	29.4	22.6	13.6	9.6	12.5	
528i Saloon	M	20.0	29.1	24.1	20.0	9.7	11.7	
528iA Saloon	A	16.1	28.3	21.9	17.5	10.0	12.9	
728 Saloon	M	14.9	28.0	22.1	18.9	10.1	12.8	
728 Saloon	A	15.3	26.4	20.9	18.5	10.7	13.5	
730 Saloon	M	14.2	28.8	22.8	19.9	9.8	12.4	
730 Saloon	A	14.9	26.9	21.1	19.0	10.5	13.4	
733i Saloon	M	14.9	26.7	22.2	19.0	10.6	12.7	
733i Saloon	A	15.0	25.5	20.6	18.8	11.1	13.7	
633 CSi Coupe	M	15.2	29.7	23.2	18.6	9.5	12.2	
633 CSi Coupe	A	14.6	26.4	21.2	19.4	10.7	13.3	
CATERHAM								
CAR SALES								
Super 7 Sports	M	24.4	35.9	28.2	11.6	7.9	10.0	
CHRYSLER								
Avenger								
1300 Saloon (HC)	M	28.5	40.5	32.0	9.9	6.9	8.8	
1300 Saloon GT Saloon (HC)	M	23.5	35.7	28.5	12.0	7.9	9.9	
1300 Estate (HC)	M	27.4	39.7	31.1	10.3	7.1	9.0	
1300 Saloon (LC)	M	25.9	38.1	29.2	10.9	7.4	9.6	
1300 Estate (LC)	M	25.9	38.1	29.2	10.9	7.4	9.6	
1600 Saloon (HC)	M	27.1	43.3	31.7	10.4	7.0	8.9	
1600 Saloon (HC)	A	24.7	37.6	29.1	11.4	7.5	9.7	
1600 Estate (HC)	M	24.7	38.8	30.2	11.4	7.3	9.3	
1600 Estate (HC)	A	24.7	37.6	29.1	11.4	7.5	9.7	
1600 GT/GLS Saloon (HC)	M	25.1	36.7	27.7	11.2	7.7	10.2	
1600 GT/GLS Saloon (HC)	A	25.9	33.6	26.4	10.9	8.4	10.7	
1600 Saloon (LC)	M	24.0	36.7	28.5	11.7	7.7	9.9	
1600 Saloon (LC)	A	25.7	35.7	27.7	11.0	7.9	10.2	
1600 Estate (LC)	M	24.0	36.7	28.5	11.7	7.7	9.9	
1600 Estate (LC)	A	25.7	35.7	27.7	11.0	7.9	10.2	
Alpine								
1294	M	31.0	37.7	28.5	9.1	7.5	9.9	
1442	M	26.2	39.8	31.0	10.8	7.1	9.1	

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
CHRYSLER Cont.							
Sunbeam							
930 Saloon	M	35.8	43.4	29.7	7.9	6.5	9.5
1300 Saloon (HC)	M	28.5	40.5	32.0	9.9	6.9	8.8
1300 Saloon (LC)	M	25.9	38.1	29.2	10.9	7.4	9.6
1600 Saloon (HC)	M	27.1	40.3	31.7	10.4	7.0	8.9
1600 Saloon (HC)	A	24.7	37.6	29.1	11.4	7.5	9.7
1600 Saloon (LC)	M	24.0	36.7	28.5	11.7	7.7	9.9
1600 Saloon (LC)	A	25.7	35.7	27.7	11.0	7.9	10.2
Hunter							
1500 Saloon (HC)	M	26.9	35.1	24.1	10.5	8.0	11.7
1725 DL Saloon (HC)	M	24.7	34.2	25.0	11.4	8.2	11.3
1725 DL Saloon (HC)	A	24.4	30.0	22.5	11.5	9.4	12.5
1725 GL Saloon (HC)	M	27.2	36.5	26.5	10.4	7.7	10.6
1725 GL Saloon (HC)	A	26.9	32.0	24.3	10.5	8.8	11.6
1725 Saloon (LC)	M	24.0	33.7	23.5	11.7	8.4	12.0
1725 Saloon (LC)	A	23.5	28.5	21.0	12.0	9.9	13.4
Simca							
1000 LS Saloon	M	29.1	41.5	30.0	9.7	6.8	9.4
1000 GLS Saloon	M	30.4	46.3	31.0	9.3	6.1	9.1
1100 S Saloon	M	25.9	39.8	29.4	10.9	7.1	9.6
1100 LE/GLX Saloon	M }	29.1	39.2	27.9	9.7	7.2	10.1
1100 GLS Estate	M }						
Chrysler							
180	M	22.2	34.9	26.2	12.7	8.1	10.8
2 Litre	A	23.7	32.8	25.7	11.9	8.6	11.0
Matra							
Rancho	M	26.1	31.7	24.5	10.8	8.9	11.5
Bagheera	M	27.9	42.8	32.8	10.1	6.6	8.6
CITROEN							
2CV6 Saloon	M	40.9	49.6	—	6.9	5.7	—
Dyane 6 Saloon	M	39.2	49.6	—	7.2	5.7	—
G Special Saloon	M	32.5	44.1	33.6	8.7	6.4	8.4
GS Club Saloon	M }						
GS Pallas Saloon	M }	25.2	41.6	29.4	11.2	6.8	9.6
GS Basatte	M }						
GS Club Saloon C-matic	Semi-A }	26.9	38.1	27.4	10.5	7.4	10.3
GS Pallas Saloon C-matic	Semi-A }						
GS Club Estate	M	25.2	41.6	28.8	11.2	6.8	9.8
G Special Estate	M	32.5	43.4	32.5	8.7	6.5	8.7
GSX2 Saloon	M	25.9	41.6	30.1	10.9	6.8	9.4
CX2000 Saloon	M	19.9	34.5	27.7	14.2	8.2	10.2
CX2400 Saloon GTi (inj)	M	18.6	34.9	28.0	15.2	8.1	10.1
CX2400 Saloon (Pallas) (inj)							
C-matic	Semi-A }	20.2	31.4	24.1	14.0	9.0	11.7
CX2400 Estate (Safari)	M }	19.1	30.7	24.6	14.8	9.2	11.5
CX2400 Estate (Familiale)	M }						
CX2400 Estate (Safari)							
C-matic	Semi-A }	18.5	28.0	22.2	15.3	10.1	12.7
CX2400 Estate (Familiale)							
C-matic	Semi-A }						
CX2400 Saloon (Super)	M(5Sp)	18.6	39.8	30.1	15.2	7.1	9.4
CX2400 Saloon (Pallas)	M(5Sp)						
CX 2400 Saloon (Super)	M(4Sp)	19.5	34.0	26.9	14.5	8.3	10.5
CX2400 Saloon (Pallas)	M(4Sp)						
CX2400 Saloon (Super)							
C-matic	Semi-A }	19.0	31.0	24.6	14.9	9.1	11.5
CX2400 Saloon (Pallas)							
C-matic	Semi-A }						

Cont.

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
CITROEN Cont.							
CX Prestige Saloon	M(4Sp)	19.1	31.8	25.7	14.8	8.9	11.0
CX Prestige Saloon C-matic	Semi-A	18.5	31.0	24.1	15.3	9.1	11.7
CX Prestige Saloon (inj)	M(5Sp)	19.4	37.2	29.1	14.6	7.6	9.7
CX Prestige Saloon (inj) C-matic	Semi-A	20.2	31.4	24.1	10.0	9.0	11.7
COLT							
Lancer							
Saloon	M	29.9	36.9	25.2	9.5	7.7	11.2
GL Saloon	M	30.5	37.7	24.7	9.3	7.5	11.4
GL Saloon	A	25.8	33.4	23.6	11.0	8.5	12.0
GL Estate	M	27.3	38.0	26.4	10.3	7.4	10.7
GSR Sport	M	28.8	38.6	29.0	9.8	7.3	9.7
Celeste							
ST Coupe	M	25.8	36.4	26.5	11.0	7.8	10.7
GT Coupe	M	20.6	35.4	27.5	13.7	8.0	10.3
GT Coupe	A	22.0	32.6	24.6	12.8	8.7	11.6
GT 2000 Coupe	M	20.8	33.4	24.5	13.6	8.5	11.5
GSR Coupe	M	27.2	36.2	26.9	10.4	7.8	10.5
Galant							
Sapporo SL	M	26.1	39.0	28.8	10.8	7.2	9.8
Sapporo GSL	A	18.6	31.9	23.7	15.2	8.9	11.9
Sapporo GSR	M	20.4	37.5	29.4	13.8	7.5	9.6
Sigma GL	M	27.1	38.0	27.4	10.4	7.4	10.3
Sigma GL	A	27.5	34.5	23.5	10.3	8.2	12.0
Sigma 2000 GLX	M	20.7	33.6	25.1	13.6	8.4	11.3
Sigma 2000 GLX	A	24.7	28.9	19.6	11.4	9.8	14.4
DATSUN							
Cherry F11							
Saloon	M	34.4	48.7	32.5	8.2	5.8	8.7
Saloon	A	33.6	42.8	29.8	8.4	6.6	9.5
Estate	M	34.4	47.9	32.8	8.2	5.9	8.6
Coupe	M	29.8	47.1	33.6	9.5	6.0	8.4
Sunny 120Y							
Saloon	M	34.9	46.3	31.4	8.1	6.1	9.0
Saloon	A	32.8	42.8	28.5	8.6	6.6	9.9
Estate	M	34.9	44.8	30.1	8.1	6.3	9.4
Coupe	M	34.9	47.1	32.5	8.1	6.0	8.7
Violet A10							
140 J Saloon	M	32.1	42.8	30.4	8.8	6.6	9.3
160 J Saloon	M	29.4	39.8	28.8	9.6	7.1	9.8
160 J Saloon	A	28.5	36.2	25.9	9.9	7.8	10.9
160 SSS Coupe	M	27.2	43.5	32.1	10.4	6.5	8.8
Bluebird 810							
160 B Saloon	M	28.2	39.8	29.1	10.0	7.1	9.7
180 B Saloon	M	28.5	39.2	30.1	9.9	7.2	9.4
180 B Saloon	A	28.5	35.8	27.2	9.9	7.9	10.4
180 B Estate	M	28.5	37.2	27.2	9.9	7.6	10.4
180 SSS Coupe	M	25.0	41.5	31.0	11.3	6.8	9.1
180 SSS Coupe	A	28.0	36.2	25.7	10.1	7.8	11.0
Laurel 200L							
Saloon	M	21.2	31.7	23.9	13.3	8.9	11.8
Saloon	A	23.3	28.8	22.1	12.1	9.8	12.8
Coupe	M	21.2	31.7	23.9	13.3	8.9	11.8
Coupe	A	23.3	30.1	22.8	12.1	9.4	12.4
Cedric 280C							
Saloon	M	18.8	30.1	22.8	15.0	9.4	12.4
Saloon	A	20.2	27.5	20.6	14.0	10.3	13.7
Estate	M	18.8	29.7	22.4	15.0	9.5	12.6
Estate	A	20.2	25.9	20.0	14.0	10.9	14.1
260Z							
Coupe	M	20.6	37.7	29.1	13.7	7.5	9.7
Coupe 2 + 2	M	20.2	36.2	28.2	14.0	7.8	10.0
FERRARI							
308 GT4 2 + 2	M	12.2	22.3	19.2	23.2	12.7	14.7
308 GTB	M	13.9	28.2	23.5	20.3	10.0	12.0
400 GT	M	10.2	19.2	14.8	27.7	14.8	19.1
400 Automatic	A	11.4	19.4	15.9	24.8	14.6	17.8
512 BB	M	10.4	21.7	18.7	27.2	13.0	15.1

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
FIAT							
126 Saloon	M	38.7	46.3	—	7.3	6.1	—
126 De Ville	M						
127 900	M	33.6	48.7	35.8	8.4	5.8	7.9
127 1050	M	31.7	42.8	30.7	8.9	6.6	9.2
128 1100	M	30.7	44.8	32.1	9.2	6.3	8.8
128 1300 Saloon	M	28.0	42.8	29.4	10.1	6.6	9.6
128 1300 Estate	M	28.5	39.2	28.2	9.9	7.2	10.0
Berlinetta	M	24.6	41.5	32.5	11.5	6.8	8.7
Mirafiori 1300	M	25.7	38.7	27.7	11.0	7.3	10.2
Mirafiori 1600 Saloon	M(4Sp)	24.1	39.2	29.4	11.7	7.2	9.6
Mirafiori 1600 Saloon	M(5Sp)	24.1	42.2	31.7	11.7	6.7	8.9
Mirafiori 1600 Saloon	A	26.2	35.3	26.7	10.8	8.0	10.6
Mirafiori 1600 Estate	M(4Sp)	25.0	39.4	29.3	11.3	7.2	9.6
Mirafiori 1600 Estate	M(5Sp)	25.0	42.2	31.9	11.3	6.7	8.9
Mirafiori 1600 Estate	A	25.6	35.2	26.5	11.0	8.0	10.7
132 1600	M(5Sp)	24.4	40.4	30.4	11.6	7.0	9.3
132 1600	A	22.8	32.9	25.7	12.4	8.6	11.0
132 2 litre 11:41	M(5Sp)	20.3	33.6	26.4	13.9	8.4	10.7
132 2 litre 12:41	M(5Sp)	24.4	38.2	28.8	11.6	7.4	9.8
132 2 litre 12:41	A	21.6	30.7	24.4	13.1	9.2	11.6
X1/9	M	25.3	46.0	35.3	11.2	6.1	8.0
FORD							
Escort							
1100 HC Saloon Popular	M	30.4	42.2	28.5	9.3	6.7	9.9
1100 HC Saloon Popular Plus/L	M						
1100 (Econ) Estate (HC) Base	M	30.4	42.2	28.8	9.3	6.7	9.8
1100 Estate (HC) Base	M	28.8	42.2	29.4	9.8	6.7	9.6
1100 Estate (HC) Base (4.44 axle)	M	27.2	41.5	31.7	10.2	6.8	8.9
1300 Saloon Popular/Popular Plus/L/GL	M	38.2	38.7	26.2	7.4	7.3	10.8
1300 Saloon Popular/Popular Plus/L/GL	A	27.7	36.2	26.4	10.2	7.8	10.7
1300 Estate (HC) Base/L/GL	M	38.2	40.4	29.1	7.4	7.0	9.7
1300 Estate (HC) Base/L/GL	A	27.7	38.7	30.1	10.2	7.3	9.4
1300 Saloon Ghia/Sport	M	29.1	39.8	29.4	9.7	7.1	9.6
1600 Saloon Ghia/Sport	M	25.7	40.9	31.0	11.0	6.9	9.1
1600 Saloon Ghia/Sport	A	23.7	36.7	28.3	11.9	7.7	10.0
1600 (2v) OHC Saloon/Mexico	M	25.0	44.1	32.9	11.3	6.4	8.6
2000 (2v) OHC Saloon	M	25.7	37.1	27.6	11.0	7.6	10.2
Granada							
2.0 OHC Saloon Base/L	M	21.6	34.5	26.4	13.1	8.2	10.7
2.0 OHC Saloon Base/L	A	22.8	32.1	24.4	12.4	8.8	11.6
2.0 OHC Estate L	M	21.1	33.2	25.5	13.4	8.5	11.1
2.3 V6 Saloon L/GL/GLS	M	20.9	32.8	26.4	13.5	8.6	10.7
2.3 V6 Saloon L/GL/GLS	A	19.9	28.3	23.0	14.2	10.0	12.3
2.3 V6 Estate L/GL/GLS	M	21.6	32.5	25.7	13.1	8.7	11.0
2.3 V6 Estate L/GL/GLS	A	19.9	27.7	21.6	14.2	10.2	13.1
2.8 V6 Saloon GL/GLS/Ghia/Ghia S	M	19.0	31.4	24.6	14.9	9.0	11.5
2.8 V6 Saloon GL/GLS/Ghia/Ghia S	A	19.5	28.5	23.5	14.5	9.9	12.0
2.8 V6 Estate GL/GLS	M	19.0	31.4	24.8	14.9	9.0	11.4
2.8 V6 Estate GL/GLS	A	19.5	29.1	22.2	14.5	9.7	12.7
2.8 V6 F1 Saloon S	M	19.2	32.8	25.9	14.7	8.6	10.9
2.8 V6 F1 Saloon S	A	18.8	29.1	23.9	15.0	9.7	11.8
2.8 V6 F1 Saloon GL/GLS/Ghia/Ghia S	M	18.7	32.8	25.9	15.1	8.6	10.9
2.8 V6 F1 Saloon GL/GLS/Ghia/Ghia S	A	18.3	29.1	23.9	15.4	9.7	11.8
2.8 V6 F1 Estate GL/GLS	M	16.7	31.4	23.9	16.9	9.0	11.8
2.8 V6 F1 Estate GL/ GLS	A	17.4	29.1	22.8	16.2	9.7	12.4

Cont.

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
FORD Cont.							
Capri							
1.3 Coupe Base/L	M	27.2	40.9	31.4	10.4	6.9	9.0
1.6 Coupe L/GL	M	25.5	38.7	28.5	11.1	7.3	9.9
1.6 Coupe L/GL	A	23.2	34.5	25.5	12.2	8.2	11.1
1.6 Coupe S	M	24.8	38.2	29.1	11.4	7.4	9.7
1.6 Coupe S	A	23.9	34.5	26.4	11.8	8.2	10.7
2.0 OHC Coupe GL/S/ Ghia	M	24.6	39.8	30.1	11.5	7.1	9.4
2.0 OHC Coupe GL/S/ Ghia	A	24.6	36.2	28.0	11.5	7.8	10.1
3.0 V6 Coupe S/Ghia	M	20.0	31.7	25.5	14.1	8.9	11.1
3.0 V6 Coupe S/Ghia	A	19.0	30.1	24.4	14.9	9.4	11.6
Cortina							
1.3 (Econ) Saloon Base/L	M	26.7	40.4	28.8	10.6	7.0	9.8
1.6 (Econ) Saloon Base/L	M	26.4	37.7	29.4	10.7	7.5	9.6
1.6 (Econ) Estate Base/L	M	25.7	37.7	29.4	11.0	7.5	9.6
1.6 Saloon L/GL	M	25.5	38.7	28.5	11.1	7.3	9.9
1.6 Saloon L/GL	A	23.2	34.5	25.5	12.2	8.2	11.1
1.6 Estate L/GL	M	22.8	36.2	28.0	12.4	7.8	10.1
1.6 Estate L/GL	A	21.9	32.5	24.8	12.9	8.7	11.4
1.6 Saloon Ghia	M	25.9	39.2	27.7	10.9	7.2	10.2
1.6 Saloon Ghia	A	23.9	34.5	25.2	11.8	8.2	11.2
1.6 Estate Ghia	M	25.9	39.2	28.3	10.9	7.2	10.0
1.6 Estate Ghia	A	23.9	35.3	25.7	11.8	8.0	11.0
2.0 OHC Saloon GL/S/ Ghia	M	24.1	38.7	28.5	11.7	7.3	9.9
2.0 OHC Saloon GL/S/ Ghia	A	24.8	32.5	24.1	11.4	8.7	11.7
2.0 OHC Estate GL/S/Ghia	M	24.1	36.2	27.2	11.7	7.8	10.4
2.0 OHC Estate GL/S/Ghia	A	24.8	33.2	24.6	11.4	8.5	11.5
2.3 V6 Saloon GL/S/Ghia	M	21.4	34.0	27.4	13.2	8.3	10.3
2.3 V6 Saloon GL/S/Ghia	A	20.2	30.1	25.2	14.0	9.4	11.2
2.3 V6 Estate GL/S/Ghia	M	20.6	34.9	28.5	13.7	8.1	9.9
2.3 V6 Estate GL/S/Ghia	A	19.8	31.0	26.2	14.3	9.1	10.8
Fiesta							
957 Saloon (LC) Base/L/ Ghia	M	35.8	50.4	34.4	7.9	5.6	8.2
957 Saloon (HC) Base/L/ S/Ghia	M	34.4	47.9	34.0	8.2	5.9	8.3
1117 Saloon (HC) Base/S/ Ghia	M	32.1	47.1	33.6	8.8	6.0	8.4
1300 Saloon S/Ghia	M	31.4	44.1	33.6	9.0	6.4	8.4
FORD PERSONAL IMPORT/EXPORT							
Mustang II Ghia	A	12.7	20.5	17.0	22.2	13.7	16.7
Mercury							
Monarch Ghia	A	10.2	20.3	—	27.5	13.9	—
Fairmont							
GXL Sedan	A	13.8	22.2	17.4	20.5	12.7	16.2
Station Wagon	A	11.0	18.8	14.7	25.6	15.0	19.2
HONDA							
Civic							
1250 Saloon 3 Door	M	38.1	43.4	29.7	7.4	6.5	9.5
1250 Saloon 3 Door	A	38.7	34.9	26.4	7.3	7.6	10.7
1250 Saloon 5 Door	M	38.1	44.8	32.1	7.4	6.3	8.8
1250 Saloon 5 Door	A	39.7	34.9	25.0	7.1	8.1	11.3
Accord							
1600 Coupe	M	31.4	47.0	33.6	9.0	6.0	8.4
1600 Coupe	A	29.7	38.7	28.2	9.5	7.3	10.1
LADA							
1200 Saloon	M	22.8	33.2	—	12.4	8.5	—
1200 Estate	M	21.9	33.3	—	12.9	8.5	—
1300 Saloon	M	22.9	34.8	—	12.4	8.1	—
1500 Saloon	M	23.3	34.6	—	12.1	8.2	—
1500 Estate	M	21.5	34.1	—	13.1	8.3	—

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
LANCIA							
Beta							
1300 Saloon	M	23.7	40.4	30.7	11.9	7.0	9.2
1600 Saloon	M	21.7	40.4	30.7	13.0	7.0	9.2
2000 Saloon/2000 ES	M	21.7	37.7	30.7	13.0	7.5	9.2
1300 Coupe	M	25.2	42.2	32.5	11.2	6.7	8.7
1600 Coupe	M	23.9	44.8	33.2	11.8	6.3	8.5
2000 Coupe	M	20.8	39.2	31.4	13.6	7.2	9.0
1600 H.P.E.	M	22.6	42.2	32.9	12.5	6.7	8.6
2000 H.P.E.	M	22.2	40.4	31.0	12.7	7.0	9.1
1600 Spider	M	22.1	43.5	32.9	12.8	6.5	8.6
2000 Spider	M	21.1	40.9	31.0	13.4	6.9	9.1
Monte-Carlo	M	19.5	39.2	30.7	14.5	7.2	9.2
Gamma							
2500 Saloon	M	17.1	35.3	29.1	16.5	8.0	9.7
2500 Coupe	M	15.0	31.4	26.4	18.8	9.0	10.7
LEYLAND CARS							
Mini							
850 Saloon	M	39.3	48.7	—	7.2	5.8	—
1000 Saloon	M	38.8	48.5	33.0	7.3	5.8	8.5
1000 Saloon	A	40.2	38.9	—	7.0	7.3	—
Clubman Saloon	M	35.3	46.8	32.1	8.0	6.0	8.8
Clubman Saloon	A	37.4	37.4	—	7.6	7.6	—
Clubman Estate	M	34.8	45.4	33.7	8.1	6.2	8.4
Clubman Estate	A	37.4	36.3	—	7.6	7.8	—
1275 GT	M	34.7	46.0	33.3	8.1	6.1	8.5
Allegro							
1100 Deluxe	M	31.6	41.1	31.4	8.9	6.9	9.0
1300 Super	M	31.6	41.5	31.3	8.9	6.8	9.0
1300 Super	A	27.5	36.8	27.5	10.3	7.7	10.3
1300 Super Estate	M	31.6	41.0	31.2	8.9	6.9	9.1
1300 Super Estate	A	28.3	36.5	27.1	10.0	7.7	10.4
1500 Super/Special	M	27.3	40.9	29.2	10.3	6.9	9.2
1500 Super/Special	A	30.8	34.5	25.2	9.2	8.2	11.2
1500 Super Estate	M	27.5	39.8	28.2	10.3	7.1	10.0
1500 Super Estate	A	30.2	34.5	25.2	9.3	8.2	11.2
Vanden Plas 1500 Saloon	M	28.3	41.3	30.3	10.0	6.8	9.3
Vanden Plas 1500 Saloon	A	28.0	33.9	25.0	10.1	8.3	11.3
1750 HL Saloon	M	26.1	41.3	31.6	10.8	6.8	8.9
Princess							
1800 Saloon HL Saloon	M	24.8	37.3	27.9	11.4	7.6	10.1
1800 Saloon HL Saloon	A	27.0	34.7	25.9	10.5	8.1	10.9
2200 Saloon HL/HLS	M	22.1	34.0	27.0	12.8	8.3	10.5
2200 Saloon HL/HLS/ Special	A	21.7	30.0	23.0	13.0	9.4	12.3
MG							
Midget	M	28.3	44.2	33.9	10.0	6.4	8.3
MGB Sports	M+OD	24.1	41.8	34.3	11.7	6.8	8.2
MGB GT	M+OD	24.1	41.1	34.4	11.7	6.9	8.2
Marina							
1.3 Deluxe/Super/Special	M	30.0	39.2	28.7	9.4	7.2	9.8
1.3 Super/Special	A	34.0	36.5	25.8	8.3	7.7	10.9
1.3 Deluxe Estate	M	29.5	40.6	30.1	9.6	7.0	9.4
1.8 Super/Special	M	26.1	36.1	27.6	10.8	7.8	10.2
1.8 Super/Special	A	27.4	33.8	24.7	10.3	8.4	11.4
1.8 GT/HL	M	22.8	38.4	27.4	12.4	7.4	10.3
1.8 HL	A	25.2	32.9	23.8	11.2	8.6	11.9
1.8 Super Estate	M	26.0	36.1	27.2	10.8	7.8	10.4
1.8 Super Estate	A	26.1	33.9	23.9	10.8	8.3	11.8
Maxi							
1500 Saloon	M	27.5	40.9	29.0	10.3	6.9	9.7
1750 Saloon	M	27.0	40.0	29.2	10.5	7.1	9.7
1750 Saloon	A	26.9	33.1	23.8	10.5	8.5	11.9
1750 HLS Saloon	M	25.6	40.0	29.3	11.0	7.1	9.6
Triumph Dolomite							
1300	M	27.2	43.9	28.3	10.4	6.4	10.0
1500/1500 HL	M	26.1	43.1	28.0	10.6	6.6	10.1
1500/1500 HL	M+OD	26.1	46.9	30.9	10.6	6.1	9.2
Cont.							

Cont.

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
LEYLAND CARS Cont.							
Triumph Dolomite Cont.							
1500 HL	A	28.9	34.3	26.2	9.8	8.2	10.8
1850 HL	M	30.3	40.4	29.1	9.3	7.0	9.7
1850 HL	M+OD	30.3	46.7	31.6	9.3	6.1	8.9
1850 HL	A	30.9	40.4	28.2	9.3	7.0	10.0
Sprint	M+OD	23.4	40.4	31.9	12.1	7.0	8.9
Sprint	A	23.1	36.5	27.4	12.2	7.8	10.3
Triumph Spitfire							
1500	M	29.4	50.2	32.7	9.6	5.6	8.7
1500	M+OD	28.7	52.9	36.3	9.8	5.3	7.7
Triumph TR7							
TR7 (2 valve)	M(4Sp)	25.5	40.6	30.9	11.1	7.0	9.2
TR7 (2 valve)	M(5Sp)	22.7	37.9	30.7	12.5	7.5	9.2
TR7 (2 valve)	A	26.2	41.5	29.7	10.8	6.8	9.5
Rover							
2300 Saloon	M(4Sp)	17.5	32.9	27.4	16.1	8.6	10.3
2300 Saloon	M(5Sp)	17.5	36.8	31.0	16.1	7.7	9.1
2300 Saloon	A	18.9	30.4	23.4	15.0	9.3	12.1
2600 Saloon	M	18.5	38.2	30.2	15.3	7.4	9.4
2600 Saloon	A	19.1	34.1	25.9	14.7	8.3	11.2
3500 Saloon	M	16.2	36.3	27.9	17.4	7.9	10.1
3500 Saloon	A	19.1	31.6	23.5	14.8	8.9	12.0
Jaguar							
XJ 3.4	M	13.8	29.8	24.4	20.5	9.5	11.6
XJ 3.4	A	14.8	25.3	20.5	19.1	11.2	13.8
XJ 4.2	M	12.4	28.2	22.9	22.8	10.0	12.3
XJ 4.2	A	13.2	23.9	19.4	21.4	11.8	14.6
XJ 5.3	A	10.9	19.3	16.7	25.9	14.6	16.9
XJ-S	M	10.8	21.4	18.2	26.2	13.2	15.5
XJ-S	A	11.4	19.8	17.2	24.8	14.3	16.4
Daimler							
Sovereign 3.4	M	13.8	29.8	24.4	20.5	9.5	11.6
Sovereign 3.4	A	14.8	25.3	20.5	19.1	11.2	13.8
Sovereign 4.2	M	12.4	28.2	22.9	22.8	10.0	12.3
Sovereign 4.2	A	13.2	23.9	19.4	21.4	11.8	14.6
Vanden Plas 4.2	M	12.4	28.2	22.9	22.8	10.0	12.3
Vanden Plas 4.2	A	13.2	23.9	19.4	21.4	11.8	14.6
Double Six Vanden Plas	A	10.9	19.3	16.7	25.9	14.6	16.9
Limousine 3 speed	A	14.2	21.1	15.5	19.9	13.4	18.2
Double Six 5.3	A	10.9	19.3	16.7	25.9	14.6	16.9

LOTUS							
Eclat 524	A	17.8	27.9	23.5	15.9	10.1	12.0
Elite 504	A						
Eclat 520 (Axle 3.73:1)	M(4)	16.6	33.6	28.4	17.0	8.4	10.0
Eclat 520 (Axle 4.11:1)	M(4)						
Eclat 521 (Axle 3.73:1)	M(5)						
Eclat 521 (Axle 4.11:1)	M(5)						
Eclat 522 (Axle 3.73:1)	M(5)						
Eclat 522 (Axle 4.11:1)	M(5)						
Eclat 523 (Axle 3.73:1)	M(5)						
Eclat 523 (Axle 4.11:1)	M(5)						
Elite 501 (Axle 3.73:1)	M(5)						
Elite 501 (Axle 4.11:1)	M(5)						
Elite 502 (Axle 3.73:1)	M(5)	16.6	33.6	28.4	17.0	8.4	10.0
Elite 502 (Axle 4.11:1)	M(5)						
Elite 503 (Axle 3.73:1)	M(5)						
Elite 503 (Axle 4.11:1)	M(5)	16.6	33.6	28.4	17.0	8.4	10.0

MAZDA							
1000 Hatchback	M	31.7	40.4	—	8.9	7.0	—
1300 DL Hatchback 3 DR/5DR	M	32.8	39.8	27.7	8.6	7.1	10.2
1300 DL Hatchback 5DR	A	31.4	35.8	25.0	9.0	7.9	11.3
818 Saloon	M	29.7	38.7	29.7	9.5	7.3	9.5
818 Saloon	A	31.7	34.4	26.6	8.9	8.2	10.6
818 Coupe	M	29.7	38.7	29.7	9.5	7.3	9.5
818 Estate	M	28.2	35.3	28.5	10.0	8.0	9.9
616 Saloon	M	26.2	36.7	28.8	10.8	7.7	9.8
929 Saloon	A	29.7	33.2	25.7	9.5	8.5	11.0

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
MAZDA Cont.							
929 Coupe	M	26.2	36.7	28.8	10.8	7.7	9.8
929 Estate	M	26.2	36.7	28.8	10.8	7.7	9.8
929 Estate	A	29.7	33.2	25.7	9.5	8.5	11.0
Polski Fiat 125 P Saloon	M	25.5	37.2	26.9	11.1	7.6	10.5
Polski Fiat 125 P Estate	M	24.8	36.2	26.2	11.4	7.8	10.8
MERCEDES-BENZ							
Model Range 123							
200 Saloon	M	18.7	30.1	22.6	15.1	9.4	12.5
200 Saloon	A	19.3	28.2	21.4	14.6	10.0	13.2
230 Saloon	M	19.2	30.1	22.6	14.7	9.4	12.5
230 Saloon	A	18.5	27.7	22.1	15.3	10.2	12.8
230 C Coupe	M	19.0	30.1	23.3	14.9	9.4	12.1
230 C Coupe	A	19.0	27.7	20.6	14.9	10.2	13.7
250 Saloon	M	17.2	28.8	23.3	16.4	9.8	12.1
250 Saloon	A	17.7	28.0	21.9	16.0	10.1	12.9
250 Saloon (LWB)	M	16.5	29.1	23.7	17.1	9.7	11.9
250 Saloon (LWB)	A	16.5	27.2	21.6	17.1	10.4	13.1
280 Saloon	M	15.2	26.7	22.1	18.6	10.2	12.8
280 Saloon	A	15.7	24.6	19.1	18.0	11.5	14.8
280 E Saloon	M	15.2	27.7	22.1	18.6	10.2	12.8
280 E Saloon	A	15.7	24.6	19.1	18.0	11.5	14.8
280 CE Coupe	M	16.4	27.4	21.2	17.2	10.3	13.3
280 CE Coupe	A	16.5	25.7	20.6	17.1	11.0	13.7
Model Range 107							
350 SL (107.023) Coupe	M	14.6	24.8	20.5	19.3	11.4	13.8
350 SL (107.023) Coupe	A	14.9	23.7	19.5	18.9	11.9	14.5
350 SL (107.043) Coupe	M	14.6	24.8	20.5	19.3	11.4	13.8
350 SL (107.043) Coupe	A	14.9	23.7	19.5	18.9	11.9	14.5
450 SL (107.44) Coupe	A)	13.6	21.9	17.9	20.8	12.9	15.8
450 SLC (107.24) Coupe	A)						
Model Range 116							
280 SE (116.024) Saloon	M	15.4	27.4	21.9	18.4	10.3	12.9
280 SE (116.024) Saloon	A	15.7	25.9	20.9	18.0	10.9	13.5
280 SEL (116.025) Saloon	M	15.4	27.4	21.9	18.4	10.3	12.9
280 SEL (116.025) Saloon	A	15.7	25.9	20.9	18.0	10.9	13.5
350 SE (116.028) Saloon	M	14.4	24.6	20.2	19.6	11.5	14.0
350 SE (116.028) Saloon	A	14.7	23.3	19.2	19.2	12.1	14.7
350 SEL (116.029) Saloon	M	14.4	24.6	20.2	19.6	11.5	14.0
350 SEL (116.029) Saloon	A	14.7	23.3	19.2	19.2	12.1	14.7
450 SE (116.032) Saloon	A)	13.5	21.7	17.7	21.0	13.0	16.0
450 SEL (116.033) Saloon	A)						
450 SEL (116.036) Saloon	A	12.5	20.9	17.3	22.7	13.5	16.3

OPEL							
Kadett C							
Saloon Special 1.2S	A	32.5	41.5	29.4	8.7	6.8	9.6
City Special 1.2S	A	32.5	39.2	27.2	8.7	7.2	10.4
Estate Special 1.2S	A	32.5	41.5	29.4	8.7	6.8	9.6
Coupe 1.2S	M	31.0	50.4	36.2	9.1	5.6	7.8
Coupe 1.2S	A	32.5	43.5	32.1	8.7	6.5	8.8
Coupe GT/E 2.0E	M	22.4	42.2	32.1	12.6	6.7	8.8
Ascona B							
Saloon D/L 1.6S	M	25.7	42.2	30.1	11.0	6.7	9.4
Saloon D/L 1.6S	A	25.9	36.7	26.9	10.9	7.7	10.5
Saloon D/L/Berlina 1.9S	M	23.0	40.4	29.4	12.3	7.0	9.6
Saloon D/L/Berlina 1.9S	A	25.0	35.3	26.4	11.3	8.0	10.7
Manta B							
Coupe D/L 1.6S	M	25.7	44.8	32.5	11.0	6.3	8.7
Coupe D/L 1.6S	A	25.9	38.7	28.8	10.9	7.3	9.8
Coupe SR/B 1.9S	M	23.0	42.8	31.7	12.3	6.6	8.9
Coupe SR/B 1.9S	A	25.0	37.7	28.5	11.3	7.5	9.9
Rekord E							
Saloon/Berlina/Berlina H/L 2.0S	M	23.0	40.4	30.7	12.3	7.0	9.2
Saloon/Berlina/Berlina H/L 2.0S	A	23.4	35.3	27.2	12.1	8.0	10.4
Estate D/L 2.0S	M	22.2	38.2	28.0	12.7	7.4	10.1
Estate D/L 2.0S	A	22.2	33.2	25.7	12.7	8.5	11.0

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
PEUGEOT							
104 Saloon GL	M	32.4	47.0	33.2	8.7	6.0	8.5
104 Saloon SL	M	32.4	44.1	33.6	8.7	6.4	8.4
104 Coupe ZS	M	33.2	46.3	35.7	8.5	6.1	7.9
304 Saloon GL	M	29.7	42.8	31.7	9.5	6.6	8.9
304 Saloon SLS	M	29.1	43.4	32.1	9.7	6.5	8.8
304 Estate GL	M	32.8	44.1	31.7	8.6	6.4	8.9
304 Estate SL	M	29.7	42.8	31.7	9.5	6.6	8.9
305 Saloon GL/GR	M	29.7	43.4	31.0	9.5	6.5	9.1
305 Saloon SR	M	31.7	45.5	33.6	8.9	6.2	8.4
504 Saloon L	M	22.0	35.7	26.9	12.8	7.9	10.5
504 Estate L	M	20.6	32.1	23.5	13.7	8.8	12.0
504 Saloon GL	M	23.7	36.6	27.7	11.9	7.7	10.2
504 Saloon GL	A	25.0	32.1	24.8	11.3	8.8	11.4
504 Saloon TI	M	23.1	37.6	28.2	12.2	7.5	10.0
504 Saloon TI	A	23.9	32.1	25.0	11.8	8.8	11.3
504 Estate GL	M	21.5	35.7	26.4	13.1	7.9	10.7
504 Estate GL	A	25.0	32.1	24.8	11.3	8.8	11.4
504 Estate (Family)	M	21.5	35.7	26.4	13.1	7.9	10.7
504 Estate (Family)	A	23.3	31.0	24.1	12.1	9.1	11.7
604 Saloon SL	M	17.6	31.4	25.0	16.0	9.0	11.3
604 Saloon SL	A	19.3	29.1	22.4	14.6	9.7	12.6
604 Saloon TI	M	16.8	33.2	26.1	16.8	8.5	10.8
604 Saloon TI	A	16.7	27.4	22.4	16.9	10.2	12.6

PORSCHE

924 4 Speed	M	24.1	43.5	33.6	11.7	6.5	8.4
924 Automatic	A	22.1	38.2	30.7	12.8	7.4	9.2
924 5 Speed	M	22.8	42.8	34.9	12.4	6.6	8.1
928 5 Speed	M	10.6	25.2	21.7	26.7	11.2	13.0
928 Automatic	A	13.2	29.1	16.7	21.4	9.7	16.9
911 SC 5 Speed	M	15.6	27.7	22.6	18.1	10.2	12.5
911 SC Sportomatic	A	15.7	28.3	23.0	18.0	10.0	12.3
930 Turbo 4 Speed	M	14.1	34.9	18.5	20.0	8.1	15.3

RELIANT

Kitten

Estate, Saloon	M	38.9	49.0	—	7.3	5.8	—
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Scimitar

GTE Coupe	M+OD	18.2	36.3	29.1	15.6	7.8	9.7
GTE Coupe	A	19.4	29.1	24.4	14.5	9.7	11.6

RENAULT

4 L Saloon	M	33.6	44.8	—	8.4	6.3	—
4 TL Saloon	M	34.9	44.8	—	8.1	6.3	—
5 L Saloon	M	31.4	46.3	32.9	9.0	6.1	8.6
5 TL Saloon	M	32.5	57.7	39.8	8.7	4.9	7.1
5 GTL Saloon	M	28.3	42.8	30.2	10.0	6.6	9.4
6 TL Saloon	M	30.7	43.5	30.7	9.2	6.5	9.2
12 Saloon	M	27.4	40.4	28.3	10.3	7.0	10.0
12 Saloon	A	27.2	37.2	26.2	10.4	7.6	10.8
12 TL Saloon	M	28.8	42.8	29.7	9.8	6.6	9.5
12 Estate	M	26.7	41.5	30.4	10.6	6.8	9.3
14 TL Saloon	M	31.0	44.1	31.7	9.1	6.4	8.9
15 GTL Coupe	M	26.7	41.5	30.4	10.6	6.8	9.3
15 GTL Coupe	A	27.2	37.2	26.2	10.4	7.6	10.8
16 TL Saloon	M	27.0	39.8	27.7	10.5	7.2	10.2
16 TX Saloon	M	26.4	43.8	30.9	10.7	6.5	9.2
16 TX Saloon	A	25.1	37.2	27.4	11.3	7.6	10.3
17 TS Coupe	M	26.2	52.3	35.8	10.8	5.4	7.9
17 TS Coupe	A	26.9	40.4	29.1	10.5	7.0	9.7
20 TL Saloon	M	25.7	39.2	28.2	11.0	7.2	10.0
20 TL Saloon	A	24.1	35.3	25.2	11.7	8.0	11.2
20 TS Saloon	M	22.8	34.9	27.2	12.4	8.1	10.4
20 TS Saloon	A	24.8	33.2	25.9	11.4	8.5	10.9
30 TS Saloon	M	16.3	33.2	24.4	17.3	8.5	11.6
30 TS Saloon	A	17.1	31.0	23.3	16.5	9.1	12.1

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
ROLLS-ROYCE							
MOTORS							
Rolls-Royce Silver	A	11.1	19.5	15.9	25.5	14.5	17.7
Shadow II Saloon							
Rolls-Royce Silver							
Wraith II Saloon							
Bentley T2 Saloon	A	10.1	17.6	14.5	28.0	16.0	19.4
Bentley Corniche							
Convertible							
Bentley Corniche							
Saloon	A	9.3	14.4	12.6	30.4	19.7	22.5
Rolls-Royce Corniche							
Convertible							
Rolls-Royce Corniche							
Saloon	A	9.3	14.4	12.6	30.4	19.7	22.5
Rolls-Royce Camargue							
Saloon							
Rolls-Royce VI							
Limousine							

SAAB

99 Range

GL Saloon 2SN CM	M	21.6	39.2	26.4	13.1	7.2	10.7
GL Saloon 4SN CM	M						
GL Saloon 3CK CM	M						
GL Saloon 3CK TM	M						
GL Saloon 5CK TM	M	23.0	38.7	28.5	12.3	7.3	9.9
GL Saloon 4SN TM	M						
GL Saloon 4SN TA	A						
GL Saloon 3CK JA	A						
GL Saloon 5CK TA	A	22.6	34.5	26.2	12.5	8.2	10.8
EMS Saloon 2SN IM	M						
EMS Saloon 3CK IM	M						
GLE Saloon JCK IA	A						
Saloon 4SN IA	A	22.1	34.5	25.9	12.8	8.2	10.9
TD Saloon 3CK SIM	M						

SKODA

S110R Coupe

	M	31.4	39.2	28.5	9.0	7.2	9.9
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Estelle

S105S, S105L, Saloon	M	30.1	44.1	32.8	9.4	6.4	8.6
S120L Saloon	M	29.1	42.2	31.0	9.7	6.7	9.1
S120LS Saloon	M	34.5	42.2	31.4	8.2	6.7	9.0

SUBARU

1600 Range

Saloon	M	26.9	42.6	—	10.5	6.6	—
GL Coupe	M						
Saloon	A						
GFT Hard Top	M						
Estate DL	M	26.8	44.7	—	10.6	6.3	—

TOYOTA

Toyota 1000

	M	32.2	48.0	—	8.8	5.9	—
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Corolla

30 Saloon	M	28.8	40.4	30.4	9.8	7.0	7.3
30 Saloon	A	27.7	35.3	26.2	10.2	8.0	10.8
36 Estate	M	28.8	40.4	30.4	9.8	7.0	9.3
35 Coupe 5 speed	M	27.1	43.5	31.1	10.4	6.5	9.1
1200E Saloon	M	29.5	45.8	—	9.6	6.2	—
1200cc Liftback	M	32.5	43.5	28.3	8.7	6.5	10.0
1600cc Liftback	M	29.4	39.2	28.5	9.6	7.2	9.9

Carina

1600 Saloon	M	27.7	36.7	26.0	10.2	7.7	10.7
1600 Saloon	A	31.7	31.0	23.4	8.9	9.1	12.1
1600 Estate	M	27.7	37.2	27.4	10.2	7.6	10.3

Celica

1600 ST Coupe	M	28.5	40.4	34.9	9.9	7.0	8.1
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Cont.

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
TOYOTA Cont.							
Cressida							
2000 Saloon	A	23.7	29.1	21.6	11.9	9.7	13.1
2000 Estate	M	22.2	33.6	24.6	12.7	8.4	11.5
2000 Estate	A	23.7	29.1	21.6	11.9	9.7	13.1
Crown							
Super Saloon	A	21.2	26.4	19.6	13.3	10.7	14.4
VAUXHALL							
Chevette							
1300 Hatchback	M	28.5	38.7	27.2	9.9	7.3	10.4
1300 Sedan/Estate	M	28.9	42.8	28.8	9.8	6.6	9.8
2300 HS	M	17.4	34.4	28.0	16.3	8.2	10.1
Viva							
1300 Sedan	M	27.5	40.4	26.2	10.3	7.0	10.8
1300 Estate	M	25.8	39.8	28.5	11.0	7.1	9.9
1800 Sedan	M	21.1	34.9	26.6	13.4	8.1	10.6
1800 Sedan/Estate	A	19.8	30.7	23.3	14.3	9.2	12.1
1800 Estate	M	20.6	34.9	25.9	13.7	8.1	10.9
Magnum							
1800 Sedan	M	21.1	34.9	26.6	13.4	8.1	10.6
1800 Sedan/Estate	A	19.8	30.7	23.3	14.3	9.2	12.1
1800 Estate	M	20.6	34.9	25.9	13.7	8.1	10.9
2300 Sedan/Estate	M	21.7	33.2	25.7	13.0	8.5	11.0
2300 Sedan/Estate	A	19.9	31.3	24.1	14.2	9.0	11.7
Cavalier							
1300 Sedan	M	28.1	43.5	29.7	10.0	6.5	9.5
1300 Coupe	M	28.1	43.5	30.7	10.0	6.5	9.2
1600 Sedan	M	25.7	42.2	30.1	11.0	6.7	9.4
1600 Sedan	A	25.9	36.7	26.9	10.9	7.7	10.5
1900 Sedan	M	23.0	40.4	29.4	12.3	7.0	9.6
1900 Sedan	A	25.0	35.3	26.4	11.3	8.0	10.7
1900 Coupe	M	23.0	42.8	31.7	12.3	6.6	8.9
1900 Coupe	A	25.0	37.7	28.5	11.3	7.5	9.9
2000 Sedan	M	23.7	39.8	29.7	11.9	7.1	9.5
2000 Sedan	A	25.4	36.2	26.9	11.1	7.8	10.5
2000 Coupe	M	23.7	42.2	32.1	11.9	6.7	8.8
2000 Coupe	A	25.4	38.2	29.1	11.1	7.4	9.7
VX							
1800 Sedan	M	18.8	35.3	28.0	15.0	8.0	10.1
1800 Sedan	A	19.9	31.7	24.1	14.2	8.9	11.7
1800 Estate	M	19.0	34.4	26.6	14.8	8.2	10.6
1800 Estate	A	18.0	30.1	22.6	15.7	9.4	12.5
2300 Sedan/Estate	M	19.0	34.4	25.9	14.9	8.2	10.9
2300 Sedan/Estate	A	18.3	29.7	22.8	15.5	9.5	12.4
4/90 Sedan	M	17.0	32.8	25.2	16.6	8.6	11.2
VOLKSWAGEN							
VW Beetle Cabriolet	M	23.5	36.2	24.6	12.0	7.8	11.5
VW Polo N/L	M	32.1	48.7	34.4	8.8	5.8	8.2
VW Polo LS	M	30.7	43.5	31.4	9.2	6.5	9.0

Manufacturer/Model	Trans- mission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
VOLKSWAGEN Cont.							
VW Derby LS	M	30.7	40.9	31.7	9.2	6.9	8.9
VW Derby GLS	M	30.4	46.3	34.0	9.3	6.1	8.3
VW Golf N/L	M	33.2	42.8	32.1	8.5	6.6	8.8
VW Golf LS/GLS	M	29.1	41.5	29.1	9.7	6.8	9.7
VW Golf LS/GLS	A	28.0	38.6	26.9	10.1	7.3	10.5
VW Golf GTI	M	23.0	41.5	32.5	12.3	6.8	8.7
VW Scirocco GLS	M	26.9	42.8	31.4	10.5	6.6	9.0
VW Scirocco GLS	A	25.7	38.2	28.2	11.0	7.4	10.0
VW Scirocco GTI	M	21.4	46.3	35.3	13.2	6.1	8.0
VW Passat LS	M	25.0	41.5	30.7	11.3	6.8	9.2
VW Passat LS	A	25.4	37.7	26.4	11.1	7.5	10.7
VW Passat GLS	M	22.4	45.6	24.3	12.6	6.2	11.6
VW Passat GLS	A	24.6	39.8	21.4	11.5	7.1	13.2
VW Passat LS Estate	M	25.0	41.5	30.7	11.3	6.8	9.3
VW Passat LS Estate	A	25.4	37.7	26.4	11.1	7.5	10.7
VW Passat GLS Estate	M	25.7	40.3	30.4	11.0	7.0	9.3
VW Passat GLS Estate	A	24.1	34.9	25.2	11.7	8.1	11.2
Audi 80 LS	M	25.0	41.5	30.7	11.3	6.8	9.2
Audi 80 LS	A	25.4	37.7	26.4	11.1	7.5	10.7
Audi 80 GLS	M	25.7	40.3	30.4	11.0	7.0	9.3
Audi 80 GLS	A	24.1	34.9	28.2	11.7	8.1	10.0
Audi 80 GLS Estate	M	25.7	40.3	30.4	11.0	7.0	9.3
Audi 80 GLS Estate	A	24.1	34.9	25.2	11.7	8.1	11.2
Audi 100 LS/GLS	M	22.8	36.2	28.0	12.4	7.8	10.1
Audi 100 LS/GLS	A	23.7	32.8	25.4	11.9	8.6	11.1
Audi 100 GL5E	M	20.6	32.8	25.4	13.7	8.6	11.1
Audi 100 GL5E	A	21.4	32.8	25.2	13.2	8.6	11.2
Audi 100 Avant L	M	22.4	38.7	28.0	12.6	7.3	10.1
Audi 100 Avant L	A	25.4	34.9	24.8	11.1	8.1	11.4
Audi 100 Avant GL5E	M	20.6	34.4	26.4	13.7	8.2	10.7
Audi 100 Avant GL5E	A	21.4	33.6	25.7	13.2	8.4	11.0
VW Type 2 Kombi 1584	M	24.6	23.7	—	11.5	11.9	—
VW Type 2 Kombi 1970	M	20.5	27.7	—	13.8	10.2	—
VW Type 2 Kombi 1970	A	22.6	27.2	—	12.5	10.4	—
VOLVO							
66 GL Saloon	A	28.0	36.7	26.7	10.1	7.7	10.6
66 GL Estate	A	28.0	38.7	28.3	10.1	7.3	10.0
343 DL	A	24.2	37.2	27.2	11.7	7.6	10.4
244 DL Saloon	M	20.0	31.4	—	14.1	9.0	—
244 DL Saloon	A	19.8	26.9	—	14.3	10.5	—
244 GL Saloon	M	19.1	36.2	26.4	14.8	7.8	10.7
244 GL Saloon	A	17.7	25.9	—	16.0	10.9	—
245 DL Estate	M	20.3	31.0	—	13.9	9.1	—
245 DL Estate	A	19.8	27.2	—	14.3	10.4	—
245 DLE Estate	M	18.2	35.8	—	15.5	7.9	—
245 DLE Estate	A	17.5	25.9	—	16.1	10.9	—
264 GL/GLE Saloon	M	17.5	31.7	24.4	16.1	8.9	11.6
264 GL/GLE Saloon	A	15.9	26.2	—	17.8	10.8	—
265 GL/GLE Estate	M	15.2	32.5	—	18.6	8.7	—
265 GL/GLE Estate	A	15.8	26.4	—	17.9	10.7	—

Models excluded from the scheme

The following types of car are excluded from the scheme:

- cars manufactured before 1 January 1978
- secondhand cars
- cars adapted to carry more than eight passengers (excluding the driver)
- three-wheelers
- invalid carriages
- van-derived passenger cars
- cars built specially for export
- cars operating on four-wheel(ed) drive only
- cars whose engines run on diesel, liquefied petroleum gas or other such fuels.

These vehicles will not, therefore, be labelled in the

showrooms. Lorries, vans and motor-cycles are also excluded from these tests.

In addition the following manufacturers and importers have for the present been granted exemption from fuel consumption testing requirements:

A C Cars Limited
Aston Martin Lagonda (1975) Limited
Bristol Cars Limited
De Tomaso Cars (Modena Concessionaires)
Lamborghini Cars Limited (Modena Concessionaires)
Maserati Cars
Morgan Motor Company Limited
Panther Westwinds Limited
T V R Engineering Limited

Further Information

Further details of the scheme are contained in:

ENERGY ACT 1976 and PASSENGER CAR FUEL CONSUMPTION ORDER 1977 (S.I 1977 No. 1603).

Both publications are available at Her Majesty's Stationery Office Bookshops.

This Order does not apply to the Channel Islands or the Isle of Man.

Peddaller's plea

Motorists, please look out for cyclists and leave them plenty of room when passing. With bumpy roads, drains, roadside debris and the 'bow-wave' of air from passing vehicles, even a skilled cyclist cannot guarantee to hold a straight and steady course all the time. If there's not much overtaking space, please wait until there is, and don't pull back in too soon after passing—we cyclists are moving forwards, too!

R R Collins
Cardiff

Greenery screenery

On many Continental motorways, evergreen bushes and trees on central reservations act as a screen at night against the headlights of oncoming vehicles. The plants also improve the appearance of the roads during the day. How about a plant-a-bush campaign for British motorways?

Mrs A Stevens
Liverpool

A spokesman for the Department of Transport says: 'On some

Letters

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stretches of motorway we have vertical battens to reduce glare, and we do plant trees and bushes at the sides of the motorways for landscaping purposes. But it is not now our policy to do any planting along central reservations, as a lot of expensive trimming is needed to stop plants getting in the way of heavy traffic and motorway signs.

Good turn?

In California, and more recently in 49 other states, it has been legal since 1947 for a driver to turn right (the equivalent of a left turn in Britain) against a red traffic light—provided that he gives way to pedestrians and traffic. Having lived in America for 24 years and in England for the last two, I have experienced both traffic systems and would certainly recommend the American practice as a definite aid to improved traffic-flow.

Dr Keith Gilroy
Long Beach, Calif

Manual operation

As the service manager of an MoT testing station, I agree with your report (January-February issue) that changes in test legislation and procedure are necessary. However, you state that 'an obvious test item' is the rear numberplate lamp.

According to the HMSO testers' manual, this is not so. Neither is it correct to say that one inoperative washer-jet automatically fails

a vehicle—as long as the fault is on the nearside. The manual does not specify a required number of jets, only that they—with the wipers—clean the screen effectively to give adequate forward vision.

You also state that, on the VT20/21/22 certificates, an either/or situation arises regarding the registration and chassis-number entry. The actual wording is 'chassis or serial number to be shown only when no registration mark is exhibited on vehicles'.

R Jones
Moss Pit Garage
Stafford

Les Sims, manager of AA Technical Services, and a member of the technical committee that drafted the new testers' manual, says: 'As it is illegal not to illuminate the

rear numberplate, and checking it at the same time as the rear lights would take only a couple of seconds, it should surely be "an obvious test item". Similarly, the law and the test require that wipers should enable the driver to have a clear view of the road to the front, near and offside of the vehicle. I, and others on the MoT manual committee, feel that this is impossible if the nearside part of the windscreen is obscured.

It is unfair to put the onus on the MoT examiner to decide what is or is not adequate vision. There will obviously be differences of opinion.

Mr Jones is right about the wording on the certificate. But if a chassis or other number is not recorded in addition to the registration number, it becomes quite easy to swap numberplates and obtain a pass certificate for a car that hasn't been submitted for test.

Downhill racer

We read a great deal about the inconsiderate behaviour of car drivers, but what about the lorry men? My pet hate is the huge, articulated vehicle that belts along the straight and plunges madly downhill . . . but slows to a grinding 3mph at the slightest

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WORLD-WIDE

Want a fix?

Motoring makes news all over the world every day, but much of it never hits the headlines—or even the column fillers. Here, IAN WEBB picks out just a few of the high-lights of what isn't important today . . . but soon may be.

WE have already seen the virtual disappearance of the opening front quarterlight—missed by no one, except on those rare days

when it's so hot that even the booster fan can't cope. But how would you feel about fixed side windows?

That's the prospect now being considered by some car manufacturers—who, as yet, must remain nameless. Their reasoning is that almost no one needs an open window nowadays and a lot of production cost can be saved by fixing the glass and doing away with the winding mechanism. Wind-down windows would become an optional extra.

Motown move-in

John DeLorean is an ex-motor-industry brasshat who gave up a top job with General Motors in Detroit to run his own show. But he may find himself back there again with his pet project—a whole new motor company that will produce 20,000 sports coupés a year for sale around the world.

DeLorean's problem was where to site his new plant. Top of the

bidding development areas came Puerto Rico, the poverty-stricken Caribbean isle that needs all the new industry it can get, with an offer of development grants and financial assistance that DeLorean found hard to refuse.

But now the Puerto Ricans have been outbid by the city of Detroit which, for all its thriving image, is really in a parlous state, with unemployment, poor conditions, violence and all the other Western urban problems. The car-city fathers have now assembled a development deal so attractive that DeLorean's car—with its French-made Renault/Peugeot engine—will probably wind up being made right in the heart of Motown.

Rubber fetish

Could anyone take tyre production more seriously than Michelin? To ensure that it has the right rubber mix for maximum grip at each Grand Prix race this season,

gradient, forcing all following traffic to queue behind.

I appreciate that the thing's inability to pull on hills is not the driver's fault; but the least he could do, at the next lay-by, is pull aside to let everyone else come past *before* the next hill ascent.

Philip Peters
Leeds, Yorks

Washday Reds

I question the existence of *automatic* carwashes in Russia (Monitor, January-February). Last autumn, I travelled in the Ukraine and Moldavia, and cannot remember seeing one automatic carwash—certainly there were none at petrol stations, and it seems unlikely they'd be anywhere else.

Russians have to learn mechanics as part of their driving test requirements, and the USSR *does* provide car ramps by main roads, hotels and campsites, with adjacent washing-down areas equipped with hoses.

L Schuyleman
Guildford, Surrey

Service charge

As your MoT investigation (January-February issue) illustrated, the annual test has many defects. But your suggestion that one should entrust at least one major service a year to garages that display such variable MoT standards will surely solve nothing.

DRIVE overlooks the high quality of servicing and repairs done by many DIY mechanics. Perhaps *they* do not trust garages for the same reason that makes you unhappy with the present test arrangements—slapdash workmanship.

Phil Lyon
Pontardawe, W Glam

Michelin has obtained samples of the road surface of the various circuits used for Formula 1.

The Michelin technicians at Clermont-Ferrand, France, will match the rubber characteristics to the surface on which it will be running.

For our next truck

Will the **pick-up truck** craze ever cross the Atlantic to Britain? In the US, the boom is so big that the current best-selling car is not a car at all but one of these pick-ups, most of the sales going to campers, caravanners and other private owners seeking a robust leisure vehicle.

If pick-ups do catch on here, most European manufacturers will be caught flat-footed—rather than flat-backed. But not all: Volkswagen, for instance, is preparing a pick-up version of its top-selling Golf saloon.

To be called The Caddy? You can have that one free, VW.



MONEY

Losing interest

IF YOU spend, say, £6000 on a car, you'll make it your business to find out just how much your £6000 investment will lose each year, probably calling it 'depreciation'. But it's easy to forget that the £6000 itself, tied up in a car, is losing money, too: if somebody gave you the car free, you could have £6000 earning interest.

(This is a factor that DRIVE's car tests take into account when working out total depreciation, allowing for the loss of a nominal 7% after-tax interest on the purchase price tied up in each car.)

For most people, too, the car they choose can be a better investment than they think, especially if buying it leaves them with spare cash to invest in a house, a building society or in a few well-chosen shares.

Anyone with £6000 in hand might do well to buy a £3500 car and invest the other £2500.

In a *building society*, for example, £2500 should grow to £2800 in two years and £3000 in three, at present rates of interest on fixed-term shares.

In *National Savings Certificates*, £2500 would grow to £2837 in two years, £3062 in three years.

As a down-payment on a *new house*, £2500 could pay really big dividends, for property prices look set for a big jump this year. If you put £2500 down on a £12,500 house and its value rose by a fifth to £15,000, you'd have doubled your capital—on paper.

If you'd spread £2500 over the shares of Shell, Rolls-Royce Motors, Lucas, Godfrey Davis and British Car Auctions two years ago, for example, you could have sold out earlier this year for a profit of more than £1000. Had you bought the same shares *three* years ago, you could have doubled your money.

But, while that's been the good news for share prices over the past few years, no one can guarantee that it will happen again in the *next* two or three.

DRIVE TRAIL

AA

Bad luck! You're on page 63. Only one more page to go. But there's always the next big DRIVE—on sale 28 June—when we'll investigate used-car warranties and hit-and-run accidents, report on garage and roadside loos, send readers out for £600 secondhand buys, and put the Ford Granada 2.8GL, Audi 100 5E, Rover 2600, Porsche 924, TVR Taimar and Datsun 260Z to the test. AND, on 24 May, there's the second issue of our all-new, big-size magazine for campers, caravanners and all who love the great outdoors: TRAIL. Ask the newsagent to reserve your copy. Better still, save money with an annual subscription: complete and send us—FREEPOST—one or both of the coupons below. Today.

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USED-CAR PRICE GUIDE

Everything stops for T

WITH THOUSANDS of new-car buyers eagerly awaiting T-time—the latest letter in the registration-plate alphabet—1 August could be the time to find a secondhand bargain.

August has become a boom period for used-car dealers around the country, and many of the trade-ins coming on to the secondhand market will be privately owned, low-mileage cars. A dealer with too many on his forecourt may be keen to slash prices.

Of course, if you can sell your own car privately, he will be more pleased to see you than if you roll up looking for a part-exchange deal. With cash in your hand, you could be the answer to his prayers—so don't be afraid to try an offer, or to ask him to throw in a road-fund licence or a radio.

The thrifty new-car buyer does well to ignore the ego-boosting registration-letter change: in hard-cash terms, it really isn't worth waiting for. The best time to buy new is *January*, for when it comes to reselling, August's car will still be a 1978 model, whereas January's will be a 1979.

Car-makers' incentive schemes can complicate the picture, producing a rush to buy new cars while part-exchange prices are particularly favourable—irrespective of the time of year. Another 'critical' boom in car-buying can be sparked off by a major manufacturer announcing that its prices will soon be raised.

In the end, the best advice is not to be stampeded into buying; better to shop around, and pay slightly more rather than end up with a car that you never really wanted.

Footnote The suffix system, introduced in 1963 to denote the year in which a car was registered, will run out of letters in 1984. The letter Z will not be used because it is already in use for Irish registration plates.

When there are no more letters to choose from, the Department of Trade plans to turn car numbers back to front, introducing a prefix system and starting all over again with the letter A. So, in 1984, the current style of number-plate reading ABC 123S will become A123 ABC.

MAKE AND MODEL											MODEL YEAR							Road Test Report No.
											Average secondhand price guide							
	1977	1976	1975	1974	1973	1972	1971											
Alfa Romeo Alfased SE	1186	92	16.1	32.5	4	2900	2230	1850	1515	1225	—	—	—	354				
Audi 80 L	1297	91	14.2	31.75	5	4098	3095	2405	1935	1560	1240	—	—	389				
Audi 100 LS	1761	100	12.7	29.25	5	S	—	2825	2205	1810	1365	1115	920	314 RI 139				
BMW 1602 Lux	1573	94	14.4	29.0	6	D	—	2650	2130	1935	—	1215	1040	363				
BMW 520 I	1990	111	9.7	29.0	S/R	6099	5570	4765	3815	3020	2380	—	—	327				
Chrysler Imp de luxe	875	78	20.0	36.0	1	D	—	1160	995	850	720	610	510	258				
Avenger 1300 2-door	1295	83	19.0	30.5	2	2437	2070	1530	1310	1110	940	—	—	337				
Avenger 1600 GLS auto	1600	93	13.9	26.5	4	3677	2710	2030	1720	1450	—	—	—	339				
Alpine S	1442	97	14.3	32.0	5	3477	2875	2440	—	—	—	—	—	381				
Hunter GL 4-door	1725	86.5	15.0	28.7	3	3448	—	1870	1595	1355	1070	900	755	234				
Sceptre Mk3 auto	1725	97	14.1	28.6	4	D	—	2150	1825	1535	1290	1070	885	169				
Chrysler 2litre auto	1981	102	13.2	24.0	5	4159	3220	2330	1885	1440	1115	—	—	308				
Simca 1100GLS 5-door	1118	85	16.5	33.25	3	2803	1945	1575	1335	1120	935	775	630	298				
Citroen 2CV6	602	66	37.2	44.0	1	1647	1310	1060	895	—	—	—	—	RI 118				
Citroen Ami super	1015	88	17.6	32.5	3	D	—	—	—	—	—	—	—	348				
Citroen Dyane 6	602	70	29.5	47.0	1	1799	1415	1100	935	780	650	535	435	366				
Citroen GS1220 Club	1222	93	17.2	33.0	4	2895	2205	1745	1440	1180	955	—	—	384				
Citroen CX2000	1985	107	12.7	29.25	6/7	4637	3470	2825	2430	—	—	—	—	416				
Colt Lancer 1400 GL	1439	94	12.9	34.0	5	3070	2250	1805	—	—	—	—	—	371				
Daf 66SL	1108	79	23.5	29.0	3	S	—	—	1135	965	815	—	—	317				
Datsun Cherry 100A 4-door	988	83	17.7	41.25	3	S	—	1640	1410	1190	1010	850	715	284				
Datsun 120Y coupé	1171	86	17.7	39.0	4	2676	2235	1925	1630	1380	—	—	—	336				
Datsun Violet 1405	1428	94	15.5	32.0	4	2756	2080	1895	1500	1260	—	—	—	RI 132 M				
Datsun Bluebird 180B	1770	104	12.3	27.0	5	3087	2270	1930	1625	1370	1150	950	—	316				
Fiat 126	594	62	60.0	48.5	1	1496	1175	1015	880	755	650	—	—	334 RI 138				
Fiat 127 3-door	903	82	18.4	41.75	2	2299	1755	1435	1220	1035	885	—	—	RI 137 M				
Fiat 128 4-door	1116	86	15.5	34.0	3	2294	1735	1480	1260	1065	900	755	630	320				
Fiat 131 1600S	1585	94	13.6	32.0	5	3049	2440	2245	1735	—	—	—	—	369				
Fiat 132 1600 GLS	1756	102	12.0	25.0	6	S	2480	2015	1655	1490	—	—	—	360				
Ford Fiesta 1000 HC	957	83	18.4	41	1	2197	1925	—	—	—	—	—	—	417				
Ford Popular 1.1	1097	77	23.6	35.0	1	2123	1795	1535	1330	—	—	—	—	RI 136 M				
Escort 1300XL 4-door	1297	88	16.0	31.0	2	S	—	—	1495	1290	1100	940	800	292				
Cortina Mk3 1600XL 4-door	1593	95	15.1	27.0	3	S	—	2040	1685	1435	1225	1030	875	323				
Cortina 2000E Estate	1993	99	12.3	27.5	5	S	—	2725	2180	—	—	—	—	347 RI 116				
Capri MkII 1600GT	1593	102	12.4	27.5	5	S	3015	2515	2170	1945	—	—	—	342				
Capri 3000 GHIA auto	2994	113	9.9	22.0	6/7	S	4360	3625	3040	2645	—	—	—	RI 114				
Granada 3000 GXL auto	2994	108	11.7	21.0	6	S	—	—	2650	2055	1560	1115	—	282				
Honda Civic 1200 3-door	1169	86	14.7	34.75	4	2446	1895	1615	1370	1160	—	—	—	362				
Honda Accord auto	1600	89	14.7	32	5/6	3555	2865	—	—	—	—	—	—	420				
Lada 1200	1198	91	15	33.25	3	1955	1400	1185	1005	845	—	—	—	355				
Leyland Mini 850	848	73	26.1	41.0	1	1990	1510	1300	1050	905	770	655	555	340				
Mini Clubman Saloon	1098	82	18.2	40.5	1/2	2321	1875	1605	1285	1095	945	805	680	410				
1300 Mk2/3 4-door	1275	87.5	17.2	36.5	2	D	—	—	—	1075	925	790	670	239				
Allegro 1300 Mk1	1275	86	16.0	34.75	2	S	—	—	1465	1235	1035	—	—	329				
Allegro 1300 Mk2 4-door	1275	85	19.0	37.0	2	2749	2215	1815	—	—	—	—	—	377				
Allegro 1500 Estate	1485	90	16.6	34.25	3	3042	2535	2140	1845	—	—	—	—	RI 127 M				
Maxi 1750 Mk2	1748	90	14.6	28.75	3	3288	2575	2035	1730	1465	1225	1025	855	263				
Princess 1800HL	1798	96	14.2	29.75	4	3707	2670	2175	1900	—	—	—	—	397				
Princess 2200HL	2227	105	12.7	26.5	4	3999	2725	2230	1960	—	—	—	—	RI 129 M				
Marina 1.3 super 4-door	1275	85	18.2	33.0	2	2776	2260	1835	—	—	—	—	—	392				
Marina 1.8 super 4-door	1798	96	12.8	31.5	3	S	—	—	1625	1370	1150	960	795	295				
MG Midget Mk3	1275	93	14.8	29.1	4	S	—	—	—	1210	1020	865	730	205				
MGB Mk2/3	1798	105	11.8	23.9	6	3324	2775	2355	1985	1685	1415	1190	995	243				
Jaguar XJ6 4.2	4235	117	10.0	16.75	6/7	S	—	—	—	3740	2380	1960	1635	227				
Jaguar XJ12(L)	5343	136	7.6	13.0	7	S	—	—	4755	3840	2380	—	—	305				
Rover 2200SC	2205	104	12.2	24.0	4	D	3865	3320	2600	2130	—	—	—	324				
Rover 3500 auto	3528	112	11.1	20.5	5	S	—	3665	2925	2355	1750	1415	1165	330				
Range Rover	3528	101	13.2	18.0	5	8528	8170	7305	5895	4655	3815	3145	2550	252				
Triumph Toledo 4-door (Dolomite)	1296	83	19.8	33.0	2/3	2953	2360	2015	1510	1300	1115	950	—	345 RI 150				
Triumph Dolomite 1850	1854	100	11.4	28.25	4	S	—	2330	1960	1635	1390	1165	—	288				
Triumph 2000 Mk2	1998	95	15.0	26.0	4	D	—	—	2405	2080	1415	1165	970	219				
Triumph 2500 TC	2498	101	11.5	27.0	5	D	4010	3395	2825	2155	—	—	—	RI 112				
Triumph Spitfire 1500	1493	97	12.5	35.25	5	2776	2245	1940	1630	—	—	—	—	376				
Triumph Stag	2997	118	10.2	22.5	S/R	—	5400	4385	3565	2900	2330	1860	1440	273				
Triumph TR7	1998	108	10.2	28.75	—	3877	2725	2355	—	—	—	—	—	401				
Mazda 1000 2-door	985	98	20.0	33.5	3	1921	1535	1310	1105	935	—	—	—	343				
Opel Kadett S Estate 3-door	1196	84	16.7	32.0	4	2890	2255	1925	1635	1380	1060	885	730	338				
Opel Ascona 1.9SR	1897	96	12.3	25.5	—	S	—	—	1905	1535	1220	—	—	302				
Opel Rekord 4-door	1897	101	12.0	26.0	4	S	—	—	1835	1510	1255	1080	—	287				
Peugeot 104 4-door	954	84	17.3	36.5	3	S	—	1625	1390	1185	1010	—	—	325				
Peugeot 304	1290	92	16.7	35.5	3	S	—	1990	1690	1425	1195	995	820	386				
Peugeot 504GL	1971	99	13.7	27.75	5	4252	3295	2800	2305	1910	—	—	—	RI 140				
Peugeot 504 Estate	1971	98.5	13.8	24.5	5	4655	3865	3295	2750	2255	1885	1560	—	275				
Reliant Scimitar GTE	2994	118	9.1	21.25	7	6332	5520	4435	3445	2850	2405	1960	1610	303				
Renault 4TL	845	74	26.4	39.0	1	2190	1705	1480	—	—	—	—	—	RI 121				
Renault 5TL	956	85	19.7	42.0	2	2404	1975	1685	1440	1215	1030	—	—	349				
Renault 5TS	1289	93	13.3	36.25	4	2899	2255	1930	1645	—	—	—	—	370				
Renault 6TL (1100)	1108	82	17.9	37.75	3	2647	2015	1720	1470	1245	—	—	—	364				
Renault 12L	1289	82	18.1	34.5	3	S	2035	1765	1525	1290	1080	945	775	385				
Renault 16TL	1565	93	15.1	29.5	4	3419	2525	2135	1800	1495	1240	1010	820	291				
Rolls-Royce Silver Shadow	6750	115	10.0	14.25	S/R	26740	—	23000	19400	17800	15000	14100	11950	312				
Saab 99 GLE auto	1985	102	13.6	28.5	6	D	4360	3615	—	—	—	—	—	393				
Saab 99L 2-litre	1985	100	12.6	27.0	5	D	—	—	2305	1910	1490	—	—	311				
Skoda 1100LS 4-door	1107	86	18.0	31.0	3	D	1115	960	820	695	590	495	415	285				
Toyota Corolla coupé 2-door	1166	93	14.5	33.1	5	—	—	—	—	—	—	—	—	248				
Toyota Corona Mk2 2-door	1968	100	12.1	25.0	6	D	2510	1845	1455	1200	990	890	—	290				
Toyota Corolla 30	1166	87	15.9	33.5	4	2638	2015	1715	1455	—	—	—	—	399				
Toyota Celica coupé 2000 ST	1968	101	12.7	30.0	6/7	3909	2900	2455	—	—	—	—	—	423				
Vauxhall Chevette L 3-door	1256	90	15.3	37.25	2	2516	2210	1985	1630	—	—	—	—	396 RI 123				
Chevette L 4-door	1256	89	16.2	37.0	2	—	—	—	—	—	—	—	—	396 RI 123				
Viva HCSL 4-door	1256	84	17.8	34.0	2	D	—	1880	1595	1360	1150	970	810	264				
Cavalier 1600L	1584	96	12.6	29.5	4	3167	2570	2160	—	—	—	—	—	382				
Magnum 2300 auto 4-door	2279	94	11.9	23.25	5/6	3357	2680	2150	1785	1470	—	—	—	341				
Victor 1800 4-door	1759	93	15.7	25.0	3	S	2890	2450	1685	1415	1190	995	—	326				
Victor 2300SL estate	2279	98	12.4	26.0	4	S	3220	2850	1985	1660	1390	1115	—	315				
Volvo 3430L	1397	88	17.2	29.75	5	3550	2770	—	—	—	—	—	—	4				

Water Proof.



In Britain we reckon we get more than our fair share of rain. But it's a drop in the ocean compared with Pirelli's proving ground at Vizzola, Italy.

When we tested the grip of our remarkable new steel plus nylon belted P3 radial we really did it in depth. We practically flooded the track.

Many tyres would have been a complete wash out. But the P3, with its unique construction and tread design, didn't seem to notice the water at all. It lost little of its superb grip.

We tested the P3 for mileage too. Lap after lap of the Vizzola circuit didn't wear the tyre down. (We even went as far as taking a set of P3s for a Marathon Round Britain Drive. After 45,000 miles the tyres still had thousands of miles of life in them.)

And finally we tested the tyre for comfort.



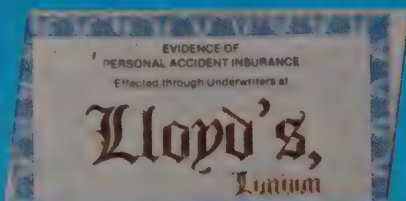
The tough yet highly flexible tyre absorbed most road surface bumps to give a smoother, more relaxing ride. In fact our test drivers were more shaken by the P3's amazing performance than the cobble stones and granite blocks we made them drive over.

At the end of our tests, we had proved that the P3 had a combination of all three major motoring benefits in one tyre. Mileage, grip and comfort.

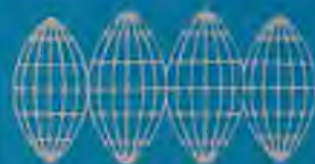
So we simply called it 'the best tyre for you'. And we think we've got a pretty watertight case for saying it.

PIRELLI STEEL+NYLON
CINTURATO P3

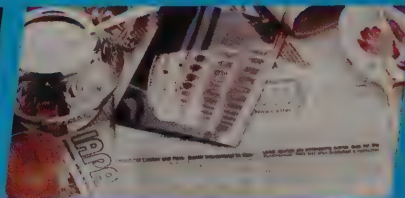
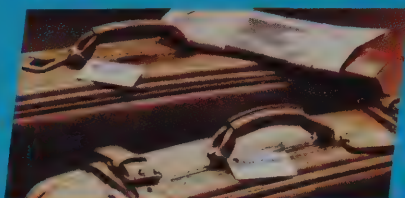
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DRIVE

July-August 1978

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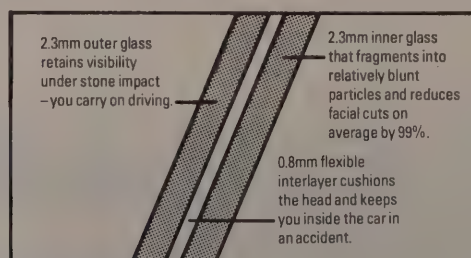
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DRIVE

Editor Anthony Peagam
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Viewpoint

Go-faster greybeards

THE COVER betrays the fact that in this issue DRIVE lets its hair down and gets among the sports cars. We've the Datsun 260Z and TVR's Taimar on test as well as the Porsche 924 (page 10), and it's true to say that all brought smiles of pleasure to the faces of our testers, even those who might prefer to own and drive one of the prestige cars—Audi 100GL 5E, Ford Granada 2.8GL estate, Rover 2600—also under scrutiny this time around (pages 32–37).

Occasionally, readers complain that DRIVE gets a wee bit *too* serious-minded about its motoring, that there's too little for sports buffs, and that we neglect shamefully those who prefer two wheels to four. So it's good to show that, though we're sure we are right generally to report on motoring as a costly and often troublesome domestic necessity, we're *not* a crowd of grouchy greybeards who see no fun whatsoever in cars. (Motorcycle fans—keep viewing!)

This issue, too, we up the pace to

Allegro in our long-term car tests (pages 25–26), and drag our sights down-market in Secondhand Review (page 49) with a look at what's on offer for £700.

In addition, we lament the appalling deterioration of the condition of Britain's roads (page 18); present the not-so-attractive results of a long, long ride to spend a penny ('Behind closed doors', page 54); and spark the idea of 'adventurous' motorway-journeying with extracts from John Slater's *Just Off The Motorway*—a guide to motorway service-station options (page 28).

And, as you'd expect, there's all our regular columns. *Plus* the invaluable Clinic (page 40). *Plus* our Used-car Price-guide (page 64). *Plus* another money-saving Special Offer (page 41). *Plus* Part 2 of our car-test Supplement.

Our reward is your enjoyment of DRIVE. This and every issue. And you'll really make our day complete if you sign up for an annual subscription—see page 53.

— the Editor

Monitor

Learning curves

The day may not be far off when passing a driving test will be only the first step to a full licence. The International Association for Driving Instructors and Traffic Education is lobbying the European parliament in Brussels to bring in compulsory driver-education for motorists in the EEC's nine member nations *after* they have passed their driving tests. And, if such a step were adopted, Britain would be forced to make this a legal obligation.

The only countries in Europe currently restricting new drivers are Northern Ireland, which insists that they carry a P-plate for a year and travel no faster than 45mph; France, a year's maximum of 90kph (about 55mph) with the appropriate speed-limit plate on the back of the car; and Spain, an 80kph restriction (50mph) for the first year, 90kph the second, also with the relevant plate.

In October, however, a tiny non-EEC nation—Norway—is stealing a march on the European community by making it a legal obligation for motorists to take further driving lessons *for two years after passing their tests*.

In this period, drivers will be issued with probationary licences and undergo tuition on such aspects as defensive, night and icy-road driving, and parking, observation and perception. Full licences will be issued only when driving schools are satisfied that candidates meet the required standard.

Black's back

'We'll sell cars in colours so fantastic that they aren't even in the spectrum,' Leyland announced recently. Not a week later, the motoring world was given details of BL's limited-edition Princess Special Six: every one, proclaimed the publicity, would be made 'distinctive by *all-black* paintwork'.

Well, black certainly isn't in the

spectrum, but probably that wasn't what was meant; it isn't 'fantastic', either. Black, from being the almost-universal finish (it isn't a colour) for cars a few decades ago, seems to be coming back into fashion as a bit of one-upmanship now that the motoring herd is sporting any hue from the brash to the cheaply cheerful.

Three years ago, Ford, remembered for Henry I's famous 'any-colour-you-like', brought out a special all-black Capri for selective buyers; more recently, Saab, so safety-conscious in other respects, announced that the new, up-market 99 Turbo would be available *only* in black—hardly bright for a car designed for breath-snatching overtaking; and just beginning to appear in Britain is a 'limited edition' of Fiat's sporty X1/9—'any colour,' says Fiat, 'so long as it's black.' Now Leyland—and probably others—will follow.

This admittedly small-scale reversion to black isn't progress; it has been shown that lighter colours are safer on the 'be seen' principle. Some may argue that there's a case for banning black, and a few extremists might even say that only whites and bright yellows should be allowed. But that would be colour prejudice...!

Worried sick

The word is that the three computers at Swansea's Driver and Vehicle Licensing Centre are at long last unravelling the knots in their magnetic tapes. But there are still delays, and some of them, although apparently 'acceptable' to the civil servants, can lead to motorist-anxiety.

DRIVE was involved recently in the case of a 71-year-old London driver who waited three weeks for news of a medical assessment. In fact, says Swansea, three weeks is an average waiting period, and nothing to get worried about. But it worried DRIVE's reader a great deal, and, imagining (wrongly) that he was about to be



'That's the Hatchback of Notre Dame ...'

denied a licence, he became quite ill with anxiety.

No news can often be puzzling and worrying, so it's worth repeating . . . enquiries to the DVLC about driving licences should be addressed to: Driver Enquiry Unit, DVLC, Swansea SA6 7JL; or telephone Swansea (0792) 72151. Give your driver number and name as it is printed on your present licence, if you possess one, and your birth-date.

M-way muddles

Although original plans for extensive roadworks on the M6 and M5 in the Midlands were scaled down recently, heavy congestion is still expected this summer, so leaflets will be available to AA members at service centres and regional offices throughout the country, describing which junctions are affected and to what extent, along with dates when work is due to start. Details of restricted traffic flows are also given.

Members are warned, however, to check current conditions with the AA before setting off, as there will still be minor alterations.

Roadworks on the M6 run from the Bedworth/Coventry junction to junction 15 at Stoke-on-Trent, although not all junctions are affected. On the M5, junction 2 at Oldbury is already closed, and junction 1 at West Bromwich is partly closed, with entry and exit restrictions. The work will be suspended during October because of the Motor Show at the Birmingham National Exhibition Centre (the first to be held there).

Alternative routes will be available, and the leaflet advises motorists to watch out for emergency diversion symbols.

Appleby apology

In the current AA *Members' Handbook*, the Appleby Manor Hotel, Roman Road, Appleby-in-Westmorland, Cumbria, is incorrectly listed as unlicensed. It is, in fact, licensed, as correctly stated in the AA *Guide to Hotels and Restaurants* (price £2.95 to members, £3.25 non-members).

Carol cares

DRIVE's nationwide search for Caring Motorists has led to Horsham, Sussex, and the first lady driver to win a nomination—Mrs Carol Grant, of Plovers Close, Horsham.

Carol's friend, Mrs Emily Ricketts, of Spencers Road, Horsham, clearly thought she filled DRIVE's bill of a 'kindly, thoughtful motorist who went out of her way to help others', and it didn't take the DRIVE panel long to reach complete agreement.

Mrs Grant, 34, spent much of her childhood in hospital with



tuberculosis. Then, five years ago, she began to suffer from arthritis, resulting in an immovable hip and

AA's AGM: A VERY GOOD YEAR

'The dominant objective of the Automobile Association is *service* to its 5,144,341 members,' said AA chairman Lord Erroll of Hale at the Annual General Meeting at the Savoy Hotel, London, on 24 May.

In 1977 it was given in good measure, with a record number of 2,750,000 breakdown and Relay recoveries completed, 45,000 vehicle inspections carried out, 150,000 technical enquiries handled, 28,000 members represented in the courts, 750,000 routes prepared, 40,000 traffic-news bulletins broadcast and £1.8million uninsured losses recovered.

It was also a very good *trading* year for the AA, affirmed the honorary treasurer, Professor Esmond Wright, and closed with an operating surplus of £1,275,833. Assets rose by £5½ million, to a book-value total of £33,757,448. Six hundred patrol and Relay vehicles were replaced, and 338 added to the fleet. And capital expenditure of more than £7½million was authorised for 1978 and beyond to improve road services.

Insurance, travel, publishing and mail-order marketing showed an 18% increase in turnover to almost £17 million. Total contribution to membership funds in 1977, all direct costs and overheads paid, was £1.6million.

The importance of commercial services, both as a means of increasing annual revenue and as a direct

benefit to AA membership, was underlined by Mr O F Lambert in his first presentation to an AGM as director general of the Association.

'The AA has only one motivating force,' said Mr Lambert. 'That is *service*—to the individual member, to the motoring community, to the nation.' The AA was willing 'to be of maximum help, whenever needed'—and essentially that remained at the roadside, 'where, on average, an AA member is rescued from trouble every 12 seconds of the day and night, 365 days of the year'.

Commercial enterprises, Mr Lambert confirmed, are 'required not only to be self-supporting but also to make a positive financial contribution to AA funds . . . they also offer members appreciable advantages in the way of privilege prices or favourable terms and conditions . . . and are *popular* with members'.

Lord Erroll spoke of the 'significant step in communications' that, earlier this year, had seen the relaunch of DRIVE in a new and attractive large format and the publication of the AA's new camping, caravanning, outdoor-life magazine TRAIL. At the close of business, the AA's Silver Medal was awarded to the Greater London Council road-safety unit, and AA Patrol Service Medals were presented to Ch Insp Harry Errington, Sgt Brian Gilham and Patrol Alan Linklater for outstanding courage and initiative in winter life-saving feats.

a stiff knee, coupled with extreme pain. Yet her handicaps haven't stopped her from leading an active life and devoting much of her time to helping others. Each week she collects an elderly, disabled friend to take shopping in Horsham, she regularly drives out of her way to pick up people in need of a lift and she does volun-

tary work at a local hospital, too.

An admiring Mrs Ricketts told DRIVE: 'Her car is nearly always full. And I have never known such cheerfulness, especially from one who has such a lot to bear herself.'

Away from her volunteer work, Mrs Grant cares for her husband Clive and children Lara, 11, and



MOTOR SPORT

Two hours' work!

AT 3pm on Sunday 16 July the Union Jack will signal the start of the John Player British Grand Prix at Brands Hatch. Twenty-six cars will leave the grid; 199 miles and two hours later, one will emerge the winner.

Two hours' work! Do the drivers and the teams really earn their millions as easily as that?

The short answer is no.

The only top-liner who lives in Britain is Brabham's Irishman John Watson. The others will fly

in the Wednesday before to discuss improvements and changes to the cars with mechanics and designers.

Thursday will see more time spent around the workshops being measured for new seats or having the pedals adjusted, with perhaps a meeting with potential sponsors and dinner with existing sponsors. Friday: two official, timed practice sessions that earn places on the grid.

The fastest man get his choice of the two front-row grid positions for the race-start; everyone else lines up two abreast behind, according to their performance.

Practice times are counted in one-hundredths of a second, and during the first hour-and-a-half session the drivers will be in and out of the pits asking for alterations to suspension, different tyres, and other modifications to aid them 'balance' the car. That done, they'll come in to put on sets of new tyres—wide, low, patternless slicks that provide their maximum efficiency during the first five laps of running, and can be worth up to ½sec in extra speed and adhesion.

The drivers' lives are compli-

cated by the changing handling character of their cars. As the petrol load gets lighter (40gal on board at the race-start) and the tyres wear, the cars begin to do strange things, sometimes to the point of being what the drivers call 'un-handleable'. Which in real terms means still driveable but 2sec off the pace.

On Saturday there are two more practice sessions. The one in the morning isn't timed and is used for tyre testing and other incidental jobs. The final, timed session, on Saturday afternoon, is often more exciting than the race itself, with every driver extracting the last ounce of power and road-holding to improve his grid-place.

The two hours of the actual race is a psychological wind-down for the drivers—the culmination of two days' work, physical, mental and emotional.

For spectators at the British GP, admission to the circuit is £6, with an additional £4 for a ticket to the race paddock, a view of the cars and maybe a chance to grab a driver's autograph. That leaves you still on your feet: a seat will cost from £6 to £20, depending on its location.

(Brands' ticket-office and Keith Prowse handle advance bookings.) Car parking is free.

A crowd of around 85,000 is expected, but only 18,000 will be able to watch the race seated. So should you go and see it live, and cope with the smell of the crowd and the roar of the engines, or watch on TV?

Brands is one of the best spectator-viewing circuits you'll find. But for a view with a seat, your best bet is probably your own armchair in front of the telly, whose motor-sport coverage this year is much improved.

Brands Hatch offers little in the way of other creature comforts and amenities for spectators: if you go, pray that it doesn't rain, and that your car doesn't slide away or get bogged-down in the car park. Catering facilities are confined to temporary stalls and casual vendors offering the usual hot-dogs. Brands' PR man told me with pride that this year several of the stands would be offering steak sandwiches . . . but in a relaxed moment admitted that spectators would be better advised to bring their own picnic lunches and drinks.

NICK BRITTAN



The Honda Accord 1600cc. One of the few cars that doesn't hang around the showroom for very long.

Which isn't surprising when you look at the facts. And the price.

For £3525*, you get a car that shows its quality inside and out, a car that has won accolades from the motoring correspondents, without exception, for its handling and performance.

You get a car that'll whip you up to 60 m.p.h. from scratch in 12 seconds with, as the table shows, a petrol consumption that would make many smaller cars blush.

You get a quality of finish and a high standard of precision engineering that'll make you wonder how it can be done for the money.

You get a 5 speed box or optional

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TEST CONDITIONS	M.P.G.	Litre/100km
Town driving cycle (ECE 15)	31.4	9.0
Constant 56mph (90km/h)	47	6.0
Constant 75mph (120km/h)	33.6	8.4

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Adrian, 6—and still finds time to teach at an adult education centre.

Now she receives 10 years' free membership of the AA, as her DRIVE prize, and, like other Caring Motorists, cannot understand what all the fuss is about. 'I'm completely flabbergasted. Please don't make me out to be a goody-goody, because I'm not really,' she pleads.

Mrs Ricketts, for her prize, can pick £10-worth of items from the current edition of the AA's mail-order catalogue.

The good news!

Among the hundreds of facts and figures jostling for attention in this issue, the number tucked away in the top righthand corner of the DRIVE Index of Motoring Costs table (opposite) is surely the most remarkable. And we may never see the like of it again.

For that figure has remained the same for the last two months, the first time in four years of Indexing—an indication that the cost of motoring has at last stabilised . . . and at a time of unprecedented price fluctuations.

How? The statisticians are reluctant to read any lasting significance into a single set of figures, but doubtless the overall slowdown in the rate of inflation is being reflected in motoring costs as much as elsewhere.

The biggest contributing factor is the seasonal fall in petrol expenditure, due to lower mileages covered in winter, together with low petrol prices.

Compared to the previous annual totals (January to December last year), the current March 1977 to February 1978 returns show that petrol costs dropped by more than £4. Even though this must be offset against price rises in servicing (£2.10), insurance (81p) and 'other' costs (£1.85), the Index reflects the fall in servicing costs for comparative months last year.

In January 1977, for example, servicing costs were £11.96; this January they were £11.23. The cost-per-mile, which in January 1977 was .43p lower than in the corresponding month this year, dropped in February this year by .23p compared to February last year.

Although monthly mileage has to be taken into consideration—in January this year, for instance, motorists on average drove 64 fewer miles than in January last year, while in February the situation was almost identically reversed—the Index total that began

MOTERING COSTS: March 1977–February 1978

INDEX Oct 1973 = 100	102	187	209	128	186	114	147	199	192
MONTH-BY-MONTH ANALYSES (all cars) AND ENGINE ANALYSES (post-1968 cars)			Petrol	Oil	Servicing repairs	Access- ories	Insurance	Other costs	TOTAL
March 1977	709	7.31	25.60	0.69	11.84	1.03	3.82	8.85	51.82
April 1977	706	7.07	24.82	1.14	12.90	0.73	3.76	6.55	49.89
May 1977	677	7.39	24.67	1.70	13.40	0.65	2.93	6.67	50.02
June 1977	757	6.89	26.28	0.95	12.78	1.84	3.08	7.21	52.13
July 1977	847	6.65	27.01	1.11	15.33	1.18	3.07	8.66	56.34
August 1977	867	5.79	26.23	0.81	11.01	1.71	3.02	7.39	50.19
September 1977	823	5.75	24.39	0.70	10.86	0.15	4.09	7.13	47.32
October 1977	738	6.60	24.10	1.63	11.08	0.44	3.97	7.49	48.70
November 1977	778	6.04	24.26	1.13	9.04	0.32	4.06	8.17	46.98
December 1977	719	5.72	22.60	0.65	6.64	0.18	4.11	6.92	41.11
January 1978	616	7.17	21.07	0.64	11.23	0.61	3.99	6.63	44.16
February 1978	738	6.17	21.26	0.85	11.80	0.81	4.24	6.59	45.55
TOTAL (for year)	748	6.54	292.29	12.00	137.91	9.65	44.14	88.26	584.21
–900cc	586	5.78	15.05	0.54	8.26	1.40	3.52	5.12	33.90
901–1100cc	693	5.97	19.69	0.75	10.17	0.93	3.62	6.17	41.33
1101–1300cc	773	5.81	23.61	0.73	9.51	0.62	3.78	6.63	44.88
1301–1500cc	737	6.36	24.76	0.80	8.18	0.21	3.92	9.04	46.91
1501–1700cc	1006	5.91	33.48	0.81	10.78	2.26	4.31	7.80	59.45
1701cc +	971	6.81	35.28	1.12	14.84	0.79	4.86	9.18	66.07
MODEL-BY-MODEL ANALYSES—post-1968 cars									
Chrysler Imp	617	5.40	16.72	0.95	7.02	0.00	3.17	5.45	33.31
Avenger	753	6.55	27.15	1.32	6.74	2.18	3.61	8.32	49.32
Hunter 1500/1750	747	7.03	27.46	0.90	6.26	0.09	4.14	13.69	52.54
Datsun Cherry/Sunny	807	5.14	21.05	0.19	10.05	0.08	4.34	5.78	41.49
Fiat 128/124	684	7.69	23.94	0.60	16.46	0.00	4.49	7.12	52.61
500/127	471	5.96	13.09	0.14	4.76	0.00	4.04	6.05	28.07
Ford Escort 1100/Popular	831	5.72	25.90	0.55	10.59	0.74	3.64	6.11	47.53
Escort 1300	1005	4.19	26.78	0.27	4.99	0.04	4.03	6.02	42.14
Cortina 1300	979	5.01	32.44	0.36	5.64	0.00	3.80	6.82	49.06
Cortina 1600	1082	5.54	35.98	0.92	10.11	0.92	3.94	8.10	59.97
Cortina 2000	1112	5.69	39.57	0.92	10.78	0.30	4.82	6.82	63.21
Capri 1600	997	6.94	34.40	1.01	15.08	7.07	4.76	6.87	69.19
Granada/Consul	1316	7.26	53.83	3.14	17.28	0.55	5.26	15.39	95.45
Leyland Mini	622	5.78	15.75	1.05	7.74	1.59	3.56	6.24	35.92
1100/1300	531	6.85	18.23	1.05	7.79	0.34	3.24	5.72	36.36
Allegro	788	5.40	23.77	2.52	3.95	1.14	3.92	7.26	42.56
Maxi 1500/1750	861	5.78	28.05	0.75	9.57	0.08	3.95	7.39	49.79
Marina 1300	852	6.31	25.47	0.64	13.26	2.72	3.39	8.29	53.76
Marina 1800	844	6.35	29.91	1.85	6.74	0.81	4.16	10.16	53.62
Princess 1800/2200	759	7.06	29.47	2.07	12.30	0.04	4.05	5.70	53.62
Rover 2000/3500	1020	6.72	38.92	0.54	15.55	0.00	5.02	8.49	68.52
Simca 1000/1100	621	6.88	21.37	0.13	11.77	0.00	3.49	5.97	42.73
Triumph Toledo/Dolomite	761	5.33	23.50	0.66	4.62	1.09	4.19	6.54	40.60
Triumph 2000/PI	814	6.56	32.03	0.70	7.61	0.98	4.65	7.48	53.45
Vauxhall Viva	719	5.90	22.47	0.72	8.22	0.57	3.61	6.84	42.43
Victor 1800/2300	714	10.21	35.16	1.85	24.76	0.00	3.72	7.35	72.83
VW Beetle	702	6.19	21.41	0.14	11.78	0.37	3.40	6.35	43.45
All Chrysler UK	778	6.23	26.03	1.05	7.29	1.11	3.81	9.18	48.48
Ford	1017	5.61	33.48	0.86	9.96	1.21	4.13	7.41	57.05
Leyland	755	6.27	24.75	1.06	9.14	1.06	3.97	7.38	47.36
Vauxhall	769	6.26	25.36	0.80	10.91	0.45	3.70	6.93	48.16
All British	843	6.05	27.51	0.96	10.09	1.01	3.96	7.49	51.03
All Fiat	656	7.24	22.19	0.32	12.87	0.44	4.61	7.09	47.53
Renault	739	5.70	20.77	0.37	7.59	2.46	4.00	6.96	42.15
Simca	633	6.90	22.39	0.30	11.20	0.00	3.60	6.23	43.73
Volvo	990	6.51	34.03	0.81	11.77	5.58	5.60	6.68	64.46
All French	753	6.03	22.86	0.37	9.79	1.31	4.07	6.97	45.38
Italian	721	6.94	24.89	0.42	12.07	0.38	4.83	7.44	50.03
Japanese	858	5.45	25.78	0.31	7.24	0.24	4.64	8.56	46.79
W German	809	7.36	26.76	0.55	20.20	0.28	4.61	7.10	59.50
All Foreign	782	6.56	24.95	0.46	13.25	0.78	4.47	7.44	51.34
Average monthly costs (£) excluding depreciation									
Cost per mile (pence)									
Average monthly mileage									

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with 100 points in October 1973 is continuing to level off.

For four years, it has risen almost consistently by about five points each time the returns have been calculated. Then, in the July to August period 1977, came a change. From 190 points in those two months, it only rose one point in September–October and one point again in November–December.

Peter Mouncey, head of AA market research, comments, nonetheless: 'It's too early to assume that motoring costs will continue to level off. The underlying trends appear still to be upwards.'

In fact, average monthly servicing and repair costs increased from £6.64 in December 1977 to £11.80 in February 1978, a jump of £5.16, making the average total expenditure for February £45.55—£4.44 more than the corresponding figure in December 1977.

Index indicators

The Ford Escort 1300 is still the most economical car to run, at 4.19p per mile. Leyland's Allegro is now in fifth position, at 5.40p per mile, and the ubiquitous Mini is 10th at 5.78p per mile. The Ford Granada/Consul group shows the highest costs at £95.45p a month, giving a 7.26p per mile ratio.

Among the four main British manufacturers, Ford remains the cheapest at 5.71p per mile, with Chrysler second at 6.23p. BL Cars is still the most expensive: 6.27p per mile.

D for desirable?

Volkswagen's new, diesel-powered Golf is sending new-car buyers running for their pocket calculators. But, even after DRIVE's thorough 1000-mile test programme, there is no easy answer to the question of when it becomes worth spending an extra £500 for a vehicle that is probably the most economical thing on four wheels.

Electronic equipment devised by AA research engineers has enabled the first-ever accurate fuel-measuring of a diesel car by a British magazine. The Golf came through with flying colours. DRIVE's test car managed an overall 51mpg, with a remarkable short-journey, round-town figure of 46½mpg, falling to 44½mpg with hard driving in heavy traffic. Driven briskly, cruising at 50mph, the Golf Diesel achieves 51½mpg, and a gentle right foot improves the figure to 63½mpg. The worst figure of the set comes on the motorway at 70mph—and that's 38mpg. On the test track at constant speeds, consumption varied from 82mpg at 30mph to 26½mpg at a top-speed 85mph.

These figures seem to suggest that it's the short-haul, town driver who is going to get the

biggest bonus in switching, but at current diesel prices the car also cries out for a high-mileage driver: with derv currently about 10p per gallon dearer than 2-star petrol, the cost-saving for British Golf D buyers over petrol-driven counterparts is only about £40 for every 10,000 miles travelled.

No one knows how depreciation will affect the diesel Golf, but it could offer better reliability, lower maintenance costs and less-toxic exhaust gases than the petrol variety: to cope with the high-compression ratio—in this case, 23:1—a diesel engine has to be built strong, and VW's estimate is that the Golf unit should last twice as long as a petrol engine.

Certainly the absence of a carburettor, sparkplugs, coil and distributor eliminates routine tune-ups. Instead, the vital and complex fuel-injection equipment is designed to operate for about 30,000 miles without attention; Lucas-CAV has recently been awarded the contract to make these for VW in Britain.

Volkswagen knows its biggest problem now is to educate a British public that has followed labouring lorries up gentle inclines that diesel vehicles are not noisy, sluggish or smelly. The characteristic diesel 'clac-clac' is heard only when the Golf engine is cold or when it is idling, and the 1500cc diesel performs like an 1100cc petrol Golf. DRIVE's figures—top speed, 85mph (1100 = 86mph), 0–60mph acceleration in 18.2sec (15sec), power output 50bhp (same).

Britain has had a long wait for the Golf Diesel because of enormous demand in Europe and North America.

Volkswagen expects about half its total Golf production run of 1500 cars a day to be fitted with diesel engines, but only 10% of the 16,000 British sales a year are expected to be derv drinkers. Only one version of the car will be sold here—the five-door Golf LD.

Road information

Numbers in parentheses refer to maps in the 1978–1979 AA *Members' Handbook*.

BRITAIN

Motorways open M90, junctions 10–11 (Perth SW bypass), 2½ miles (52).

Major roads open Cambridge–Newmarket A45, 4 miles (19); Exeter–Cheriton Bishop A30, 6½ miles (6); Luncarty–Birnam A9, 7 miles (52); Watford Bypass, St Albans Road–Hunton Br A41, ¼ mile (18).

OVERSEAS

Austria Felbertauern Tunnel toll now 190 Schillings, single, with or without caravan. Return, 330 Schillings. Return tickets for cars now interchangeable between Tunnel, Grossglockner High Alpine Road, and Tauern Autobahn.

East Vienna motorway bypass—final, 2.5km Laaer Berg–St Marx

section open, linking Süd Autobahn E7 and 22nd district of Vienna, north of Danube, via Praterbrücke. Very heavy tourist traffic anticipated from 1 July. Drivers entering from Germany advised to use alternative routes: from Nurnberg–B12 to frontier at Scharding, and B137 to Wels via Linz motorway; from Munich–via Inntal motorway to frontier point at Kiefersfelden/Kufstein, avoiding probable worst jams at Salzburg frontier; from Stuttgart and Ulm—motorway to Memmingen, B18 to Weissenberg and B308 to frontier at Aach (Bregenzer Forest), or Memmingen, Kempten, Garmisch to border at Scharnitz, via Federal Road 2. S Tyrol- and N Italy-bound drivers should go via Felbertauern, Lienz and B100 to Sillian, crossing frontier



J BULL'S FIRST CAR

Remember Esmeralda

by MOYRA BREMNER

SHE, FOR NOTHING so unpredictable could possibly be other than female, was a going-away present from my husband. Not, you understand, the 'going away' that precedes a honeymoon; the one that precedes a decree nisi. A gesture that, I am sure, was kindly meant, but an ex-mistress sent to live with me could not have wreaked more havoc.

Esmeralda—named after a very difficult little girl in a book I had read as a child—was *not* the car of my dreams. No deep-pile carpet, padded dashboard or high-fidelity stereo system adorned her squat torso. Even her chrome looked more like aluminium. A blue-grey (*dirty* blue-grey) Fiat 600 circa 1965, her only concession towards modern luxury driving was a pair of reclining front seats (though just why they reclined remained a mystery: only a pygmy could have stretched out comfortably on one). But I could have done without the luxury if only she had been reliable. She was not.

Her greatest talent in her early years was for breaking down. The more important the engagement, the more likely she was to break down. And she had an incredible nose for such things. Long-awaited plays started without me; men dear to my heart waited for me in vain; and it became a standing joke with baby-sitters that when the phone rang it was likely to be me explaining that I was stranded yet again.

One drenching evening in Covent

at Arnbach–Winnebach/Prato Drave. **Belgium** Brussels–Namur, E40 motorway being converted into a three-lane dual carriageway. Delays at peak periods between Brussels and Wavre until September 1978.

France Autoroute C27, Lille–Valenciennes—toll-free, 17km open between Lille–Ascq and Orchies.

Netherlands Autosnelweg A7, Amsterdam–Hoorn—another 12km open between Purmerend and Hoorn.

Spain Autopista A1, Burgos–Vitoria—first 32km section open between Rubena and Briviesca, bypassing the Puerto de la Brújula.

Autopista del Ebro, Zaragoza–Tudela—40km section open, west of Zaragoza to Mallen.

Switzerland Motorway N4, Arth (Lake Zug)–Goldau—5.1km, toll-free section open.

Garden she even staged her own *Candid Camera*, gathering a small crowd as an AA man and I searched the boot and engine compartment in vain for her seemingly invisible battery.

To say that I had a love-hate relationship with Esmeralda would be a cliché—but nonetheless true, for all that. I loved her as I would have loved a difficult foster-child, and with the same exasperation. Surprisingly, I never considered trading her in for a less temperamental model, but perhaps this was realism rather than sentiment: constant repairs had eroded my bank balance to a point where I could not have bought a bicycle. But it paid off. In her later years, she settled into the family and became as docile as she had once been awkward.

Meekly, before trips to France, she accepted the indignity of having her meagre linings stripped out so that I could stuff her door-frame and seat cavities, not with contraband but with tea, cereals and other essentials needed for a long camping holiday. Laden to the windscreen wipers with tents and children, she would chug—I put it no faster than that—between London and the Riviera. While flashier cars pulled into the verges, radiators steaming, she never gave a moment's trouble, dear thing.

It was on one such trip that she met her end. Catapulted, in a multiple crash, on to the car in front she became, arguably, the shortest car on the roads of France. Yet, even with her nose and tail irremediably crushed, she limped back to London. But it was a last, game effort before her damaged engine gave a final cough and died for ever.

But my little pregnant roller-skate left her mark: I no longer yearn for sleek lines and elegant interiors. It's ugly little cars that catch my fancy now.

Moyra Bremner became television's 'first lady of finance' when she made her debut on BBC2's 'Money Programme' this year

With the VX2300 GLS, Vauxhall have written a new chapter in The Art of Motoring Relaxation.

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Vauxhall Motors Ltd., P.O. Box 3, Luton LU2 0SY. For details of your nearest Dealer ring Luton (0582) 21122. Ext. 4159. For Fleet enquiries Ext. 4465 or 4160.

*Motor Magazine.

A practical alter



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When you have a small win on the Pools . . . when a dotting relative passes on in unexpected wealth . . . when your talents are finally recognised in your pay packet and the pips on your shoulder. . . . The cruel thing about sports cars is that, by the time a gentleman becomes an officer, he no longer wants the roar of the wind and the smell of the oil. But sports don't have to be *hairy-hairy*: TVR, Porsche and Datsun all have a little something for the more discerning, no-longer-a-boy racer.

TVR Taimar

Price £6638 On the road £6747

SOMETHING OLD, SOMETHING BORROWED

Blackpool is world-famous for its Tower, its rock and its illuminations. It's not nearly as well known for producing the handmade car that could turn the Golden Mile into a drag-strip. Yet the car is being built at the rate of eight a week in a modest factory just three miles from the Tower.

TVR (the original designer's name was Trevor) had even more modest beginnings, turning out cheap kit-cars from 1954 to 1973—the balmy years before VAT made them more expensive than ready-built varieties.

These days, one-time kit buyers will get a shock to see the price of a current TVR. Cheap it isn't. But what the firm still has to offer is traditional British craftsmanship at its best, with modern mechanicals married to the nostalgic appeal of cars like the old Austin-Healey 3000—fast and fruity.

Based on one smart, glassfibre shell, TVR offers three body types—a fixed-back, a hatchback and rag-top roadster. And if these aren't fast enough, Broadspeed, the performance-car specialists, can add a turbocharger to give awesome speed. . . .

DRIVE sampled the hatchback version named the Taimar. And, even without go-faster gadgetry, it was the quickest of the test trio.

How it goes

All TVRs are powered by Ford's smooth, 3litre, V6 engine, as fitted in the top-of-the-range Capri, and fed 4-star via a twin-choke Weber



carburettor. Endowed with a fool-proof automatic choke, the engine bumbles into life at a tickle of the switch and runs happily from the off. Choke operation is so good, in fact, that DRIVE's experts couldn't tell when it cut out.

Over the 1000 test miles, the Taimar managed a commendable 25½mpg overall, silencing initial suspicions that it needed an over-drive or fifth gear for economy.

The 12gal tank is not the easiest to fill, and the test car had a very unreliable gauge; once accustomed to its vagueness, the promised 300-mile range is feasible. As with most Ford engines, the V6 uses oil in negligible doses.

Even without the turbocharger, the Taimar's performance is breathtaking. On the test track's banking, drivers crossed their fingers and hung on for dear life and a howling estimated top speed of 125mph—rather academic, but exhilarating. In the standing-start test, the car shot off the mark to reach 60mph in 7.9sec and a quarter mile in 16.1sec—figures few other high-performers could emulate.

What *really* impresses, however, is the even flow of power. Top-gear acceleration times are nearly all the same: 30–50mph takes

6.7sec; 50–70mph takes less than ½sec more. With power like this in top, a lazy driver can forget the three other gears.

Ford gearboxes are, of course, invariably slick, but TVR has set itself some problems by its positioning of the stick in the Taimar: a short-legged driver has to reach *back* to find the lever (one tester complained that he felt like a monkey trying to scratch).

Ratios seem more suited to British roads than those of the Porsche 924, but testers developed leg muscles using 40lb pressure every time they needed to depress the clutch—which was also beaten by a 1-in-3 test hill. The hand-brake was not up to more than a 1-in-6 hill, and, with no hinge checks, the doors flop about on any slope at all.

The independent suspension all round is TVR's own, and ideally suited to the car's character. An anti-roll bar up front keeps the car level at high cornering speeds.

DRIVE discovered the hard way on the test track that a dab on the throttle in second gear is all that's needed to send the tail skittering round in the wet. But it has to be said that such hairy-sports-car handling may well be just the thing that appeals to Taimar buyers, who will need to learn how to apply all the 142bhp to the road with care and skill. There are, however, some unskilled people with £7000 to spend. . . .

Once mastered, the handling will bring home drivers of 'the old school' with a grin from ear to ear, and the Goodyear G800 radial-ply tyres certainly give confidence up to the limits of adhesion.

With a sports car, high cornering capabilities are often paid for in hard ride, but the Taimar is a pleasant surprise. Of course it's firmer than the 260Z—with such short-travel suspension, it has to be—but it is seldom harsh. At low speeds, it is somewhat jittery and complaining, but, given its head, things become much more level and pleasing. It would be even better with a thicker seat. . . .

The rack-and-pinion steering

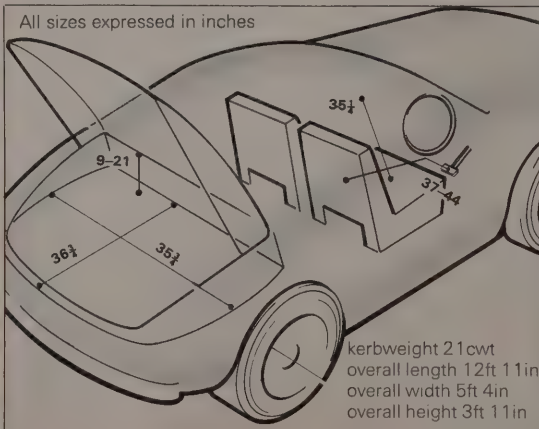
lacks 'feel' around the straight-ahead position, and 3½ turns from lock to lock is low-geared for a sports car. It is much, much heavier than the Porsche.

TVR does not need any lessons in stopping quickly: a best stop of 100% was the result of a sensible pedal pressure of 60lb.

Inside story

One broad-beamed tester complained that the driving seat was too narrow; slim Jims enjoyed a

Glittering prizes



seat that, for once, really gripped. From there, they looked through the small, leather-covered steering wheel to see a tachometer, red-lined at 6000rpm, and a speedometer graduated in mph and km/h up to 140mph. Oil-pressure and temperature gauges were easy to see, but the voltmeter and petrol gauge were better read by the passenger. (TVR says it will change the positioning to suit individual buyers.)

Steering-column stalks for

indicators and headlamp dipping are 'lifts' from the Triumph Spitfire—and their quality jars. Minor functions are controlled by a row of old-fashioned rocker switches—for hazard flashers, heated rear window, lights, washers and two-speed wipers. This, however, is under revision.

Some testers complained that the pedals are set far too close together, but TVR has the answer to this criticism, too: if needs be, the builders will virtually measure

your inside-leg and make you a car to fit. And, would you believe, the Montague Burton is on TVR's board of directors!

The Taimar doesn't pretend to be anything more than a strict two-seater, and is none the worse for that. Judged in those terms, it is quite roomy, and access to the rear luggage space is made easy via the useful hatchback. We would have liked to see a partition to stop luggage sliding forward, but rear-window heater elements are protected by two metal rods. There are numerous cubbyholes.

The TVR was—need we say it—the noisiest car in the group, but it is not as bad as some claim; the testers even grew to like the burbling of the big V6. At the same time, they were not at all impressed by a whine from the back axle or booming at low speeds (and even Taimar owners must drive gently once in a while). Wind noise is annoying at 100mph-plus on the test track, but up to Britain's limits it is reasonable.

TVR has taken criticisms of its heating and ventilation system to heart, and the latest offering is a big improvement: facia 'eyeball' vents improve conditions in the cockpit; the heater controls are easy to understand, and light up at night, and, being the air-blender type, the system responds quickly to adjustment. On really cold days, though, it struggles to cope.

The Taimar is certainly not going to collapse in a pile of plastic in the event of a crash. The tubular-steel space frame to which the glassfibre body is fastened is so strong that the Taimar crash-tested for EEC regulations at 30mph into a block of concrete emerged still steerable! Sun-visor mountings earn black marks for interior safety, but TVR promises that it won't happen again, and future Taimars will also have recessed door handles and burst-proof door catches.

Small production runs mean the company can move nimbly with the times. Let's hope it looks hard, too, at the seatbelt mountings that prevent the inertia-reel belts from retracting, and at the vulnerable siting of the fuel tank.

Living together

Glassfibre can't go rusty, and TVR guarantees its metal frame against corrosive damage for five years, but there's little apparent protection of this latter, other than stove enamelling on the outside. But the tubing is so thick that this is presumably all it needs. The quality of the welds is high, and mudtraps don't exist. Paint is well applied, despite a few paint nibs and 'orange peel' finish.

TVR dealerships don't exactly swamp the kingdom, but there are big fringe benefits to be had from

Everyman Report

For a day out, the TVR Taimar could give more fun than just about anything else on wheels, but our Everyman testers were wise enough to consider whether or not the novelty just might wear off...

Salesman Glenn Shipton, 22, from Ruislip, Middx, summed up: 'Noisy, plenty of guts, but you could get fed up with it. I disliked the tremendous wind noise.'

Retired Glasgow insurance salesman James Winchester liked it: 'It asks to be driven. The pedals are difficult to sort out, though.'

Company director David Everest, from Heathfield, Sussex, started with the bad points—'pedals too close together, gear change too far back, I didn't like the steering, seatbelts are terrible, the handling is nothing fantastic, the ride is choppy... and I'd love one.'

Basingstoke housewife Joan Phillips would have taken the TVR home if she could: 'I could certainly live with all its shortcomings.'

Ford running gear: thousands of garages can cope happily with routine maintenance.

The bonnet doesn't look as though it allows much room for work, but mechanical accessibility is better than in many other sports cars. A competent DIY-man should find plenty to keep him happy: service items are all easy to reach, though changing a wheel could give him a hernia—the spare is buried in the car's nose. The front alloy wheels quickly become covered with brake-dust and need more than just water to restore the gleam.

Parts prices make you think that rivals such as Porsche must be gold-plated—but that turns out to be only half the story: TVR almost boasts that it allows 12 hours to give the car a major service; we calculate that the Taimar could cost more to run than the 924.

Whatever some cynical old professionals may think of the Taimar's handling, many sports-car buyers will find it just what the doctor ordered. It lacks the finesse of the Datsun and the refinement of the Porsche, but in return it offers shattering performance and the sort of excitement that you thought went out with solid tyres or belts round the bonnet.

For two weeks, our testers found that it was not at all difficult to put up with a few rough edges. Whether one could live with them long-term is a different matter. But, of course, with only four cars a week for sale in the UK, finding buyers is not too much of a problem... and mass-production competitors cannot match the way TVR looks after its customers.



Porsche 924

Price £7849 On the road £7934



GIVE A CAR A GOOD NAME...

Just imagine Aston Martin suddenly deciding that what it really needed to boost profits was a cut-price car using Austin parts but with the AM wings on the bonnet.

Unthinkable? Well, Porsche has done just that, but for Austin read Volkswagen. The 924 is Porsche's second go at using mass-production components, and presumably the company has learned from the mistakes experienced with the mid-engined Porsche 914 of 1970. Certainly, the 924 offers much more room (Porsche dares to call it a 2+2) for people and luggage, but one has to wonder how much of this is simply playing motoring name-games.

Development started at Volkswagen, and it was first planned to market the 924 under the VW flag as a sort of 'ultimate Scirocco'. Politics and a fuel crisis almost killed off the whole project, and finally it was left to Porsche to save the day, though VW insisted that the car be built at its Neckarsulm factory in W Germany, under supervision by Porsche technicians.

The burning question remains: Is the 924 a cheap Porsche... or an expensive VW?

How it goes

There's no doubt as to the parentage of the power pack—the 2litre heart of the Audi 100 (a VW subsidiary), although in the 924 it has been canted almost on its side and fitted with Bosch K-Jetronic fuel injection to belt out a healthy 125bhp at 5800rpm. We, however, rate this refinement the worst of the current VW engine range, lacking bottom-end flexibility and quietness, and in the Porsche these problems are aggravated by high gearing. Testers were soon asking: 'Have they thought of using the new Audi 5E five-cylinder engine?'

Fuel injection means that drivers can forget all about starting prob-

lems, whatever the weather, and the engine has no bad habits over a first cold, damp mile. And, after checking the almost-unbelievably good mpg, DRIVE is sure that, whatever the politics, the Porsche 924 is the perfect sports car for a fuel crisis. Gentle driving returns 37mpg, and even hard going in town will leave drivers on the right side of 20mpg.

High gearing really impresses in the cut-and-thrust of high-speed touring, giving the economy you'd expect from a Ford Escort. But, of course, it also means that top-gear step-off at normal road speeds is unremarkable, and moderate driving of the 924 might cause critics to dismiss it as slow in its class.

Once the engine is spinning over 3500rpm, it's a very different story: it is much happier eating miles on the motorway than trudging round town, not sure whether to sit in second or third gear. Maximum is a highly illegal 125mph (estimated), at which our phlegmatic testers could still hold a normal conversation on the test-track banking; 0-60mph in 8.9sec is just as remarkable for a 2litre car. A 30-50mph dash in top is asking a lot of these ratios, and DRIVE cannot imagine owners

failing to get the message and changing down; but hang on, and it manages a complaining 9.9sec.

Porsche has tried hard to concentrate extra weight at the rear of the car to keep the power-packing wheels firmly on the road. To that end, the gearbox is in the back, with a rigid connection to the engine and clutch. The synchromesh has to do a lot, so the car needs a shift that is strong and light; and Porsche has succeeded, despite the lengthy drive link. There has been purist criticism about the gap between second and third ratios, and a five-speed, close-ratio box is an optional extra. There's even an optional automatic for lazy boy-racers—the only one in this group.

The smooth-acting, light clutch coped with a 1-in-4 hill re-start... albeit with a smell of burning.

Porsche has settled for Volkswagen suspension up front, using a Golf/Scirocco cross, held flat and level by an anti-roll bar; at the back is the more-familiar Porsche system of torsion bars—but again with VW origins.

Upper-limits handling can be likened to walking a tightrope: get it right, and it's very satisfying indeed, full of poise and docile to high cornering speeds. But push it really hard, have second thoughts, and cut the power, and the whole car will drift sideways in quite dramatic fashion. DRIVE's men found that the tail can be induced to come round in the wet, leaving them rather wary of exploring the car's potential. Added to this, the high-speed handling characteristics differ on left and right bends, making it unpredictable in unskilled hands.

You don't expect Porsche steering to be good; you expect it to be magic; and the 924's rudder immediately impresses as being light and quick, but with perhaps a shade too much accent on 'light'. With half an armful of lock, the system takes over and almost wants to give more by itself, lacking conventional self-centering.

Ride comfort can be summed up

Everyman Report

No doubt about it, the Porsche 924 was *the* car so far as the amateurs were concerned.

Shipton thought hard about faults, but couldn't find any. 'I liked it a great deal—very, very quick, but happy at low speeds round town. It could do with a larger set of wheels for good looks, but the handling is excellent.'

Winchester agreed, but remained unconvinced by the car's low-speed ride. 'And it doesn't look all *that* expensive. But it is definitely the best of the three.'

Everest was sold, too: 'It's so refined. It's as quick as the others, but I'd happily let my wife drive it. And there's no way I'd put my wife in either of the others.'

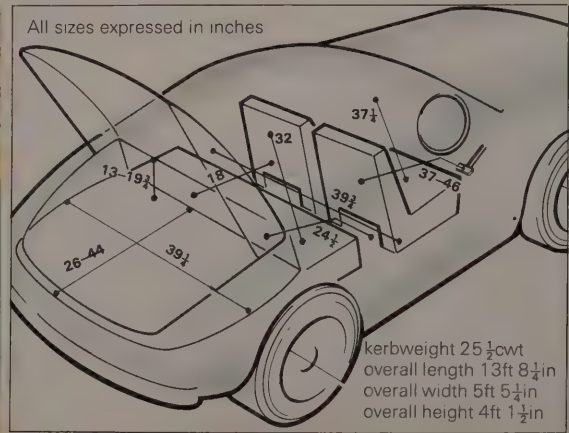
At first, Joan Phillips was intimidated by the very name Porsche, and took a few minutes to decide it was a machine and not a monster. 'After my Ford Escort, this was an absolute revelation—beautiful. The car wraps itself round you like a slinky dress and becomes part of you. Yet, for me, it was not as nice as the TVR...'

as being on the harsh side of acceptable, but the bump-thump that grates at low speed smooths out as the speedo needle climbs, adding to the car's appeal as a very able main-road mile-eater. It also felt taut and well-made over test track surfaces designed to give suspensions a hard time.

Brake pressures are again on the light side, with the 95% best stop coming at 50lb. Pedal travel is long and spongy—just like a Volkswagen's. The 924 also features Audi/VW steering geometry, which allows the car to be stopped in a safe straight line even when one wheel is lost on a patch of oil or ice. Pressures decrease when the brakes are warmed up, fade never causes worries, and water has no effect.

Inside story

At the wheel, you may be forgiven for thinking you are sitting



in an up-market Volkswagen. Add the superb front seats, borrowed from the Porsche 911, and every creature comfort is catered for in the front. Back seats are strictly for children and contortionists.

Instrumentation is comprehensive and clear, with three big dials housing a tachometer, speedometer and water-temperature/fuel gauge. There are three more on the centre console, for oil pressure, quartz clock and voltmeter, and a warning light tells if the handbrake is on, or screams out for a brake failure.

Two column-mounted stalks control indicator, dip and flash—two extra lights are slung under the bumper to avoid pop-up-headlamp delays—and the other operates the wash/wipe (two-speed plus intermittent). A rear-screen wipe (no wash) is standard, but, annoyingly, Porsche does not convert the wipers to righthand drive, leaving an unswept area to blur the driver's view.

Testers also complained of the 'oppressive' all-black interior and the high step-up to the clutch pedal, but the rest is... lovely.

Looking outwards, the bonnet falls away, and it is only when the pop-up lights arise that you know where it all ends. There's also a blind spot behind the rear three-quarter panel, and the interior mirror's view, distorted by a curved and tinted rear screen, makes following cars look as though they are on stilts.

As a four-seater car the 924 is, of course, little more than a gesture to overpopulation, but the rear squab does fold down to offer a useful amount of luggage space. There are two hidden wells for valuables (perhaps we'd better not say where) and a useful roller-blind to hide all from view. The rear screen lifts on gas-filled struts to give easy access, and further oddments can be stowed in the doors. There's a lockable glove-box, too, though strangely its light does not come on automatically.

The 924 has been criticised for being noisy, but the din is only intrusive when the car is being pushed hard. At 70mph, for instance, it is barely walking, with a canter and full gallop waiting to be unleashed. Wind noise is subdued even at these low-flying speeds, making the 924 a very relaxing car on a long journey.

The heating system fails to give instant adjustment, but, once learned, it can be lived with. Foot-well outlets give a good output, though the driver's right foot can get noticeably warmer than his left, and fresh-air vents cool the head in almost-ideal fashion without resorting to the three-speed fan. Even in mild weather the fresh-air system is stretched, making one apprehensive about a

long, hot summer. For wind-in-the-hair fiends, there is the option of a sunshine roof, or there's even full air-conditioning.

In a collision, claims Porsche, the rigid transaxle tube between the engine and gearbox will carry some of the impact forces to the opposite end of the car, by-passing the passengers in their rigid 'safety cell'. Porsche has learned the importance of safety involvement in racing, and it shows, although the company believes that primary safety is more important—features such as engine response, comfort and road-holding helping drivers to *avoid* accidents.

Living together

The 924 has an unlimited-mileage warranty period of 12 months, and, like its most expensive stable-mates, is guaranteed against sub-frame corrosion for six years—all done by double-sided galvanised steel. The paintwork on the test 924 showed some 'orange peel' effect, though for the most part it looked well applied. The front-end seems to suffer from stone chippings, but it's nice to see a car look such an eye-catcher without rust-trapping brightwork.

Happily, major servicing comes round only once in 12,000 miles, with an oil change at the halfway stage. The fuse box is under the fascia on the passenger side (under the bonnet lock, and vulnerable to the passenger's foot) but the electronics ensure that the 924 is no car for a DIY buyer (though it's a surprise to find that Porsche does not use electronic ignition on such an ultra-modern car).

While service times are competitive, some parts which are pure Porsche are exorbitantly costly—an exhaust pipe for £166, for example. Insurance is, of course, the most expensive group 7.

The Porsche 924 proves that owners can have their cake and eat it, combining true sports-car handling and performance with excellent fuel economy. Even in its most basic form, as tested, it lacks very little—though, at £7849, that's the way it should be.

To use fully the performance on tap takes perhaps more skill than the average driver possesses; with handling manners being so good until the last split second, a driver could become overconfident. And you can't buy skill off the peg...

The big thing that the 924 has going for it is the internationally respected name on the tailgate (and in foot-high letters on the side), so you have to conclude that, whatever VW had in mind, it was Porsche that had its way. While the car was with DRIVE, the testers had more friends than they could talk to...

Datsun 260Z

Price £5734 On the road £5902



Z-CAR WITH THE SOFTLY, SOFTLY TOUCH

You have only to mention Porsche or TVR to launch a motorist on a flight of fancy. Somehow, 'Datsun' doesn't raise the adrenalin in quite the same way.

In fact, Datsun joined the sports-car league several years ago with its slinky 240Z two-seater, later to be joined by a 2+2 version. Apart from some 2.6litre heart surgery four years ago, it has been little interfered with; yet the 260Z, as it now is, still boasts independent suspension all round, rack-and-pinion steering and a five-speed gearbox. But, for all this, is it really a 'proper' sports car? Or just an empty Eastern promise?

How it goes

Bare figures don't do this car full justice, but, with 2.6 litres under its bonnet producing an alleged 150bhp, stopwatch times are disappointing. And there was no way that DRIVE's testers could wring more power from the well-run-in test car: revving beyond

6000rpm simply made acceleration slower, despite the tachometer's indulgent 7000rpm limit.

In fact, recent tyre and transmission changes have raised overall gearing to the point where the 260Z's fourth is as high as many of its rivals' top gears; its fifth must be treated as a true cruising overdrive. The gear shift's dog-legged awkwardness in and out of fifth makes too-frequent selection a chore in any event, and synchromesh is obstructive down into the two lowest ratios.

Despite this statistical setback, the Datsun's power unit has a lot going for it. It is willing to rev, and, though it lacks accelerative punch lower down, it remains unperturbed when asked to slog. One gets a feeling of robust and smooth, if ponderous, efficiency.

Inherent good balance and high gearing means disdainfully easy cruising at just about any speed, although there's ear-assaulting boom around top-gear 50mph—absent in fourth. Both road and wind insulation are good, however, so the 260Z emerges on balance as the most civilised and discreet of this test trio.

Purists may read this as 'fraud'—a sheep in wolf's clothing; but that would be less than fair. True, the Z-car's handling is less exacting, more docile than the other two, but hurried across country it proves very alert and willing. The rack-and-pinion steering feels better than on any other Datsun that DRIVE's team has driven—high-g geared, lots of feel and no sloppy free-play. Heavy low-speed manoeuvring effort seems a fair price to pay.

A car's handling can easily be impaired by its ride: brute-hard springing is often a recipe for bump-steer instability. But this is where the 260Z's unusual MacPherson-strut independence all-round is very convincing, and the car goes where you point it

Everyman Report

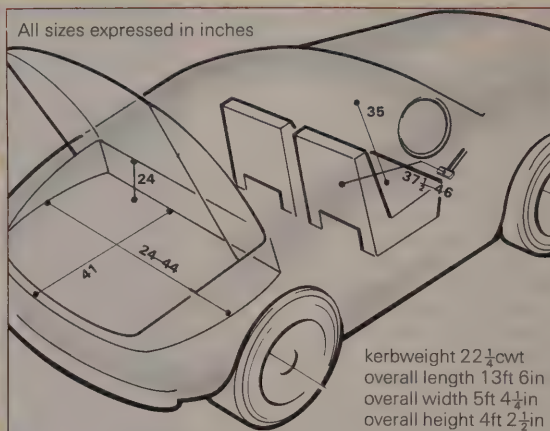
The Datsun 260Z was placed last by everyone except David Everest, but, having said that, they loved it.

Shipton—a Ford Cortina owner—commented: 'It was quite reasonable, but I wouldn't buy one. The whole car seems so big compared to the others. It was comfortable, a nice ride; but I couldn't get enthusiastic about it.'

Winchester was also impressed by the comfort: 'You don't get the shakes like you do in the other two.'

Everest was scathing, even though he rated it better than the TVR—'It doesn't feel like a sports car. With automatic and power steering, it would be a lovely tourer.'

Joan Phillips declared that Japanese cars were 'out' so far as she was concerned: 'They're flooding our market. I won't buy Irish butter, either...'



(allowing for a tendency to mild understeer), staying doggedly on-course, even on bumpy bends.

The brakes are symptomatic of Datsun's anxiety to be a good sport: the servo is bridled to avoid over-sensitive pedal response that might flatter the novice but would be unwelcome to the more discerning. If anything, Datsun may have taken things too far. Still, the system is powerful and resists fade, and the pedal has a nice progressive feel.

Two very SU-looking, but Hitachi-built, carburettors proved untemperamental on test. Plenty of choke is needed from cold, but, once warm, the six-cylinder engine idles in a way that few four-cylinders can manage. The carburettors undoubtedly contribute towards the 260Z's respectable fuel economy, too: in performance-for-thirst terms, this big-six acquires itself more favourably, than in performance-for-size.

Refuelling is marred by a grossly pessimistic gauge—DRIVE's nerve cracked when its needle had been pointing at Empty for 20 miles, yet the alleged-14½gal tank took only 11½gal to brim. This it does in exemplary fashion.

Inside story

It's some way down into the cockpit of the 51in-high 260Z, but entry is easy and the door checks are sure. The seats have ample rearward movement, but shorter drivers may have trouble getting close enough to the clutch and yet far enough back to have a proper view out. Seat rake angling is too coarse for comfort, and the setting is lost every time it's tilted for access to the luggage platform.

Generally as controllable as most saloons, the 260Z nevertheless has one or two idiosyncrasies to learn before you really feel in command: the long accelerator can catch shoes; the offset pedal layout may cause leg-discomfort to some; we sometimes snicked reverse coming from fifth to fourth; and the clutch is so strong that it's easy to 'clonk' the drive-line as it bites.

Despite speedometer optimism

(77mph indicated at 70mph), instrumentation is businesslike and comprehensive. The problem with the steering column switch-gear is remembering which way to twist the lefthand stalk to get more wipe or light rather than less. The headlamp-flash button on the end of the indicator-cum-dipper-stick is a bad idea—it's easy to miss in a rush.

Footwell ventilators that leak cold air and weak heater delivery to the right foot spell discomfort on chilly days. The fan is needed most of the time to stimulate both heater and ventilator flow, and, by the time feet feel cosy, things have become stuffy at face level.

Finding room for the occasional twin rear seat makes the 2+2 version some 12in longer in the wheelbase, but the plain two-seater retains vestigial rear footwells that can satisfy two small children who are willing to sit on the end of the carpet-covered rear load deck. These spaces will also take briefcases and other shallow items, and, although the load height is limited, the rear space—entered via the opening rear window—can comfortably handle two people's holiday luggage. Security straps prevent things sliding about.

There are two interior lamps, an ashtray and a lidded, shallow compartment in the centre console, and two 'security' lockers under the rear deck's carpet; a clock and radio-cassette player are standard equipment.

Good safety padding in the roof and a sensibly shaped, matt-black fascia are spoiled by a spiteful ignition key at knee-level, and the seatbelts, though comfortable to wear, take a lot of torso-twisting and groping to put on. But in primary safety—driving to avoid the crunch—the Datsun demanded less expertise in a panic than either of the other two.

Living together

Mechanically, the 260Z felt and looked reassuring—oil-tight, easy-to-get-at underbonnet, substantially bug-free, well fuse-protected, and with a proper rod

throttle-linkage and hydraulic clutch. Our only real grouse would be that a high-revving six-cylinder ought to have contact-less ignition in these transistorised days.

Bodily, too, the Datsun looks robust, but poor paint and scanty underbody protection were major disappointments in an otherwise well-built car. Mud-harbouring platforms under front wheelarches, and a propensity for the paint to chip and blister along seams and sills on top, left DRIVE's rust-sleuths uneasy about long-term durability prospects—some small, chromium-plated items were already pitted. In this respect, the 260Z seems no better than a Datsun Sunny.

Compared with the other beasts in this group, the 260Z is extremely well-equipped at a bargain price. But put it alongside, say, a Ford Capri 3000 or even the much-maligned Triumph TR7 and the perspective changes: you are paying real sports-car money. Nevertheless, total depreciation has been low in its class over the last 2½ years.

Parts prices are not *too* steep, and routine servicing could be tackled by a keen DIY-type without qualms (there's even an under-bonnet inspection lamp to help). The 260Z is also easy to valet, and all topping-up items are well laid-out—little wing flaps to ease battery access are thoughtful.

'Thought-provoking' is a better description for Datsun's 12-month warranty, for close scrutiny reveals a skinflint approach, and we don't favour the way one is asked to sign something that few buyers can be expected to understand as eagerly they wait to drive off in their new car...

The Datsun 260Z proves that you don't have to suffer too much to enjoy heady motoring: it isn't a terribly quick machine, yet it feels fun as well as safe.

A sort of Jatter-day big Healey or MGC, the Z-car makes a lot of sense for the man who, longing to throw caution to the slipstream, nevertheless needs a reliable car even more than a zingy image.

TVR TAIMAR

Front engine: 2994cc/6cyl, OHV; twin-choke Weber; 142bhp at 5000rpm
Rear drive: 4 gears, 21.6mph/1000rpm
Suspension: front—ind double wishbones, coil springs, anti-roll bar; rear—ind double wishbones, coil springs
Steering: rack and pinion, 3¾ turns/36½ft circle; 6JK alloy wheels, 185 HR 14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £54.21 (fitting: 6hr)
exhaust £75.51 (1hr)
headlamp unit (with bulb) £5.30 (0.25hr)
front bumper £30.33 (0.25hr)
laminated windscreen £87.94 (0.4hr)
oil filter and points £5.14 (0.43hr)
major service 12,000 miles (12hr)

	per year	per mile
Running costs	£860	7.71p
Loss of value	£392	3.27p
Total depreciation	£1617	13.43p
Insurance group	7	

PORSCHE 924

Front engine: 1984cc/4cyl, OHC (belt); Bosch pi; 125bhp at 5800rpm
Rear drive: 4 gears, 20.8mph/1000rpm
Suspension: front—ind damper/struts, coil springs, anti-roll bar; rear—ind semi-trailing arms, transverse torsion bars, anti-roll bar
Steering: rack and pinion, 4 turns/31ft circle; 5½J wheels, 165 HR 14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £93.23 (fitting 3hr)
exhaust £166.80 (2.2hr)
headlamp unit (no bulbs) £21.35 (0.7hr)
front bumper £44.32 (0.6hr)
laminated windscreen (£213.89 (2.9hr)
oil filter and points £4.10 (0.8hr)
major service 12,000 miles (3.2hr)

	per year	per mile
Running costs	£847	7.07p
Loss of value	not yet known	
Total depreciation	not yet known	
Insurance group	7	

DATSUN 260Z

Front engine: 2565cc/6cyl, OHC (chain); two vari-jet carbs; 150bhp at 5400rpm
Rear drive: 5 gears, 24mph/1000rpm
Suspension: front—ind coil damper/struts; anti-roll bar; rear—ind coil damper/struts; anti-roll bar
Steering: rack and pinion, 2¾ turns/33¾ft circle; 5½J alloy wheels, 205/70 VR 14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £66.50 (fitting 3.1hr)
exhaust £109.62 (0.7hr)
headlamp unit (no bulb) £13.42 (0.5hr)
front bumper £52.35 (0.4hr)
laminated windscreen £45.80 (1.8hr)

oil filter and points £3.83 (0.5hr)
major service 6000 miles (2.75hr, av)

	per year	per mile
Running costs	£732	6.1p
Loss of value	£193	1.61p
Total depreciation	£1603	13.36p
Insurance group	7	

THE RIVALS CLOCK IN

VW Scirocco GLS

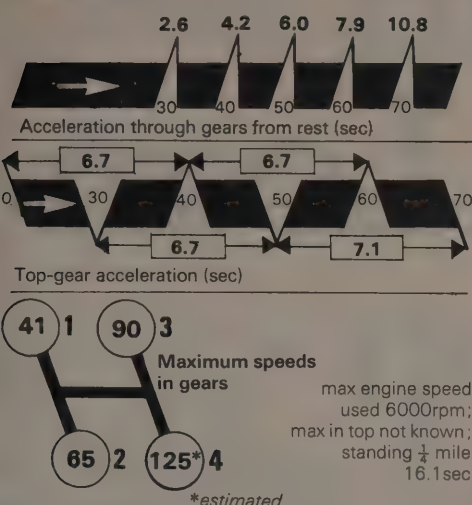
Ford Capri 3000 Ghia auto

Triumph TR7 (Four-gear)

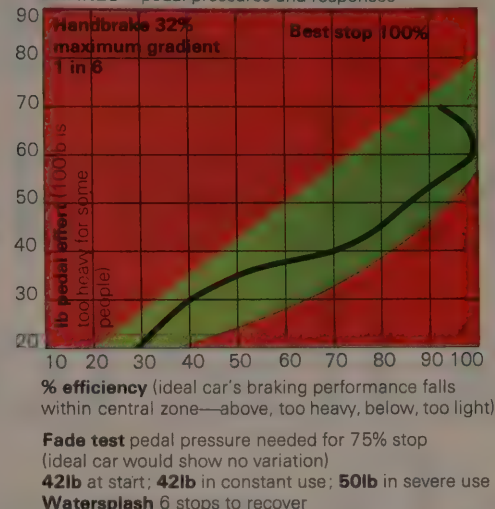
BMW 316

Opel Manta 1.9SR

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane min
overall consumption 25 $\frac{1}{2}$ mpg
effective tank range 300 miles/11 $\frac{1}{2}$ gal

Normal range of consumption

hard driving, heavy traffic	20 $\frac{1}{2}$ mpg
short journey suburban	20 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	25 $\frac{1}{2}$ mpg
motorway—70mph cruising	28mpg
quiet rural—40mph cruising	32mpg

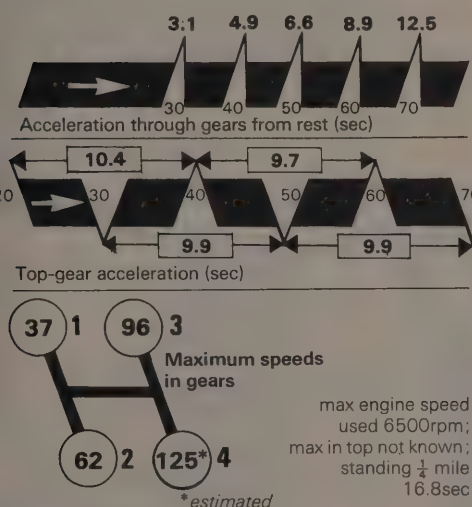
Consumption at steady speeds

30mph	40 $\frac{1}{2}$ mpg
56mph	35 $\frac{1}{2}$ mpg
70mph	28mpg
100mph	19mpg

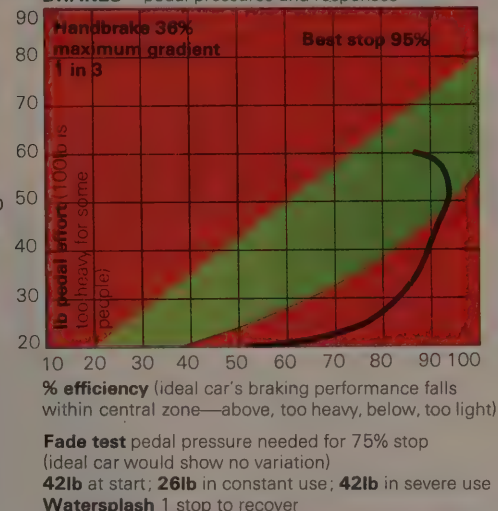
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	No	doors: crashproof?	Yes
convenient?	No	childproof?	N/A
rear belts: fitted?	N/A	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load-sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/98 octane min
overall consumption 30 $\frac{1}{2}$ mpg
effective tank range 350 miles/12 gal

Normal range of consumption

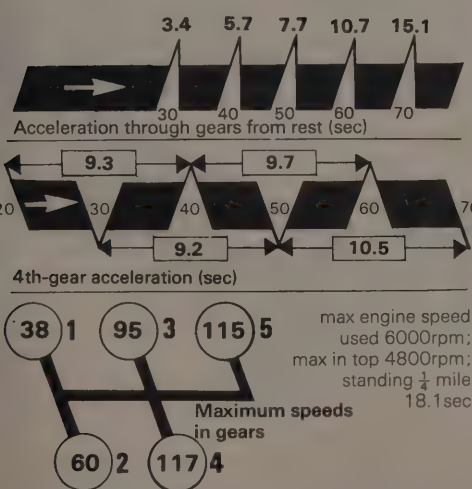
hard driving, heavy traffic	21 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	29mpg
quiet rural—40mph cruising	37mpg

For technical reasons, the DRIVE/AA electronic fuel-metering device cannot at present be used on engines fed by fuel-injection systems. Accordingly, no accurate figures can be supplied for 'short journey, suburban' or 'motorway—70mph cruising' conditions, or for steady-speed consumptions

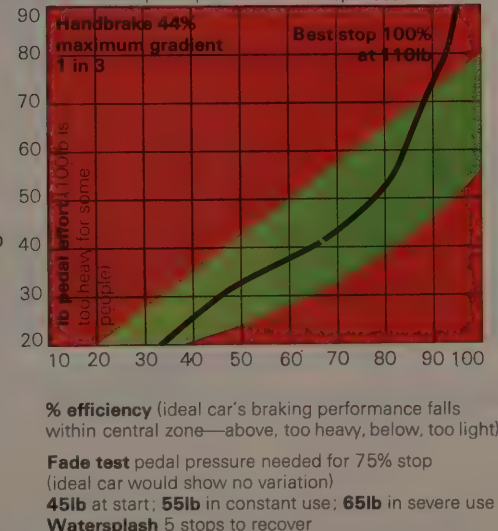
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 3-star/94 octane min
overall consumption 26mpg
effective tank range 300 miles/11 $\frac{1}{2}$ gal

Normal range of consumption

short journey, suburban	19mpg
hard driving, heavy traffic	20 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	26 $\frac{1}{2}$ mpg
motorway—70mph cruising	29 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	30 $\frac{1}{2}$ mpg

Consumption at steady speeds— top gear fourth

30mph	38 $\frac{1}{2}$ mpg	35 $\frac{1}{2}$ mpg
56mph	35mpg	33 $\frac{1}{2}$ mpg
70mph	29 $\frac{1}{2}$ mpg	28mpg
100mph	18 $\frac{1}{2}$ mpg	17mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	No	childproof?	Yes
rear belts: fitted?	N/A	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/CIRCLE (FT)
4395	1588	34 $\frac{1}{2}$	103	11.4	9.5	92/50	12'8"	41	33	3 $\frac{1}{2}$ /32 $\frac{1}{2}$
5545	2994	22	113	9.9	3.3 (k/d)	94/55	14'3"	41	37	3 $\frac{1}{2}$ /34 $\frac{1}{2}$
4072	1998	28 $\frac{1}{2}$	108	10.2	7.4	100/60	13'4"	42	—	3 $\frac{1}{2}$ /29 $\frac{1}{2}$
4249	1573	27 $\frac{1}{2}$	101	12.9	11.3	100/55	14'3 $\frac{1}{2}$ "	40 $\frac{1}{2}$	39 $\frac{1}{2}$	4/31 $\frac{1}{2}$
4272	1897	26 $\frac{1}{2}$	103	11.0	9.1	100/40	14'9"	40 $\frac{1}{2}$	33 $\frac{1}{2}$	3 $\frac{1}{2}$ /33 $\frac{1}{2}$

k/d—kickdown

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Interest on amount of loan: 1-2 years - 9% flat for each 12 months 3-5 years - 9.5% flat for each 12 months

Amount of loan	12 Months True interest 17.5% p.a.			24 Months True interest 17.5% p.a.			36 Months True interest 18% p.a.			48 Months True interest 17.5% p.a.			60 Months True interest 17.5% p.a.		
	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.
£	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p
200	218.04	18.04	18.17	235.92	35.92	9.83	257.04	57.04	7.14	276.00	76.00	5.75	295.20	95.20	4.92
300	327.00	27.00	27.25	354.00	54.00	14.75	385.56	85.56	10.71	414.24	114.24	8.63	442.80	142.80	7.38
400	435.96	35.96	36.33	472.08	72.08	19.67	514.08	114.08	14.28	552.00	152.00	11.50	589.80	189.80	9.83
500	545.04	45.04	45.42	589.92	89.92	24.58	642.60	142.60	17.85	690.24	190.24	14.38	737.40	237.40	12.29
600	654.00	54.00	54.50	708.00	108.00	29.50	771.12	171.12	21.42	828.00	228.00	17.25	885.00	285.00	14.75
700	762.96	62.96	63.58	826.08	126.08	34.42	899.64	199.64	24.99	966.24	266.24	20.13	1,032.60	332.60	17.21
800	872.04	72.04	72.67	943.92	143.92	39.33	1,028.16	228.16	28.56	1,104.00	304.00	23.00	1,180.20	380.20	19.67
900	981.00	81.00	81.75	1,062.00	162.00	44.25	1,156.68	256.68	32.13	1,242.24	342.24	25.88	1,327.80	427.80	22.13
1,000	1,089.96	89.96	90.83	1,180.08	180.08	49.17	1,284.84	284.84	35.69	1,380.00	380.00	28.75	1,474.80	474.80	24.58

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Profession or trade _____

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Business Address _____

How long in their employ? _____

Bankers _____

Bankers address (in full) _____

Do you hold a Barclaycard? YES/NO _____

AA Membership No. _____

Purpose of loan (give details) _____

Total cost of goods or service £ _____

Amount of cash required £ _____

Repayment period required _____ months

Average net monthly take-home pay (i.e. after
deduction of Income Tax, N.H.I. Contributions, etc.)
£ _____ monthly

Any other income £ _____ monthly

Please submit your latest P.60 or other annual
advice or at least two monthly/weekly pay slips

Mortgage payments/Rent £ _____ monthly

Total of current hire purchase and credit payments
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Any other regular payments £ _____ monthly
(Give details)



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DATE _____

OUR illustration may play Britain's latest roads crisis for laughs, but there's a grim underlying truth. Certainly company director Christopher Gordon Clark will never forget Friday 26 November 1977, the day that he and his wife Cecilia took to the road from their south-west London home, travelling to Aldeburgh, on the Suffolk coast.

Gordon Clark was at the wheel of his Citroen CX. The weather was good, and he and Cecilia were looking forward to a weekend with friends. But they never reached the East Anglian festival town. Their car ended up on its roof in a field, its side ripped open by a concrete fence post. And Mrs Clark was dead.

The inquest returned a verdict of accidental death. But there was some interesting police evidence. The stretch of road where the tragedy occurred was uneven. There had been complaints, said police, about its 'undulating' surface.

The highway has since been made good. Nonetheless, the accident has joined what

The end of the road?

many experts believe is a growing number caused by the worsening condition of Britain's roads—the result of five years of Whitehall policy that has effectively forced down the level of local-authority spending on highway maintenance, despite the fact that, in the same period, licence and fuel VAT revenue has soared.

'Economies' since 1973 have paved the way to even faster road deterioration in

the next five years . . . and 1983, estimates the Asphalt and Coated Macadam Association (ACMA), will be the point of no return. Then, it will be *financially impossible* for the country ever to catch up with the backlog of road repair-work. (Projected figures show that road expenditure between now and 1981–1982 will continue at about one third below the 1973–1974 level—the last period, says ACMA, when anything like the right amount of money was spent on road maintenance.)

The cost of this neglect for the motorist? Higher running costs through damaged suspensions, premature tyre replacements, and increased fuel consumption with more frequent use of low gears. (A survey in Pennsylvania has shown that driving on badly-maintained roads can increase vehicle operational costs by up to 41% and an international road congress has warned that consistent driving on badly maintained roads can shorten the running life of passenger cars and of com-



mercial vehicles by up to 50% and 40% respectively.)

The cost to the country? Almost certainly escalation in terms of delays. And more accidents. (The price per road fatality, according to the Transport Department, is £70,000; serious injury, £3500.)

And these costs in time and money are of only secondary importance to the Gordon Clarks of Britain... Mr Clark's front-wheel drive Citroen went out of control at nearly 70mph on the A12 dual-carriageway, half a mile north of the junction with the A1100 in the Suffolk district of Washbrook Hill. Last November that part of the A12 was rutted through the constant pounding of heavy lorries on the way to the container port of Felixstowe. The hazard was serious enough for Suffolk County Council to put up warning signs.

Whether the damaged road surface

contributed to the Clarks' accident may never be proved. But, as Ian Tufnell, accident prevention officer of Lincoln Police, 130 miles to the north, says: 'There are a number of unexplained accidents. A contributory cause in some could be the condition of the road, and my view is that we could be seeing many roads breaking up after next winter.'

Tufnell has special reason to feel alarmed: Lincolnshire has more casualties per 1000 population than any county outside the London metropolitan area.

One thing is certain: every accident on a bad road surface adds credibility to the clamour of warnings from highway engineers across the country.

The results of the cut-back on road maintenance can now be seen in every part of the land. Everywhere, roads are marred by potholes and patches.

Garages are doing a booming trade in repairs to vehicle suspensions. In Dorset

for example, some bus companies are having to repair springs four times more frequently than a few years ago, because of potholes along bus routes.

Motorcyclists have discovered a new hazard at a time when apparently they are more than ever at risk—in 1977, two-wheeler accidents went up by 15% over the previous year. Road-safety director of the Royal Society for the Prevention of Accidents, Michael Read, says: 'We suspect that there's a definite link between



bad roads and the rise in the number of two-wheeler accidents.'

In a nation that, just a few years ago, boasted the highest standards of highway maintenance in the world, it comes as something of a shock to hear Britain's roads now being described as 'a collection of holes held together by bits of tarmac'—a charge that comes from a Scottish county engineer who has seen road-repair spending in his area drop by 30% over the last few years, with grim consequences for his own 8000 miles of road.

Road users surely have every right to expect better when it is remembered that, last year alone, they paid more than £915½ million in vehicle licence dues, almost £25 million through VAT on fuel sales . . . in total, £3500 million in motoring-related taxes.

Of this, central government spent £490 million on motorways and trunk roads—which explains why these are receiving, and will continue to receive, regular attention. *The trouble is that motorways and trunk roads represent only 5% of our total highway mileage; the rest is the responsibility of Britain's 65 principal local authorities.* And it would appear that the cash support provided by central government to help them by no means accounts for the balance.

True, the Exchequer in the same period gave £285 million in transport supplementary grants (TSGs) to county councils in England and Wales, and a further £883 million in rate-support grants to similar bodies in Scotland. But, although around 95% of highway mileage is the responsibility of local authorities, the grants are not allocated for the specific purpose of road building, improvements, maintenance, lighting and administration. The income also goes towards public-

THE WAY THE MONEY WENT

It seems incredible, now, that the amount we spend in vehicle-licence duty once all went on the building and upkeep of the roads.

The turning point came in 1926, when the Chancellor (Winston Churchill) began diverting money from the Road Fund, as it was called, to the Exchequer. After that, raiding the roads' kitty became increasingly fair game until 1955, when the system was abolished. In its place came a new method of Exchequer grants, and, by 1975, road finance was firmly in the hands of Whitehall.

Today, the counties get their money in the form of block grants. One such is the Transport Supplementary Grant, which contributes to all transport spending, of which roadbuilding and repairs are a part.

Although road-tax revenue has risen enormously since the early 1970s, government policy has been to force down the level of local-authority spending on road maintenance because of the economic recession. As a result, road maintenance has become expendable. Indeed, in the latest White Paper from the Transport Department—*Policy For Roads: England 1978*—highway maintenance barely rates a mention, despite protest from the country's road engineers.

In theory, the county councils can spend as

transport subsidies, car parking, traffic management, road safety—and, north of the Border, much else besides.

When DRIVE quizzed a random six local authorities, two—Surrey and Hertfordshire—could argue that they had nothing left from their 1978–1979 TSGs to support their respective road programmes after meeting subsidies to their public bus services. These amounted to nearly £2 million and £2½ million respectively, against TSGs of £1.7 million and £2¼ million. Northumberland fared rather better—just over £1½ million in hand after paying the bus subsidy. Even so, a spokes-

man admitted that, whereas four years ago it would have taken 'only' 184 years to repair every mile of its roads, the same task on present spending levels would now take 1250 years! Lincolnshire and Gwynedd (Wales) also had cash to play with for their £7 million roads bills—£868,000 and £2½ million respectively.

In an effort to keep down the burden on the rates, many local authorities have for several years backpedalled on essential repairs, and the rain, snow and severe frosts of last winter have aggravated an already serious situation, says Brian Hamling, bitumen manager for BP Oil,

they wish the money allocated to them by central government. But each year, the civil servants scrutinise the counties' transport policies and programmes, and if, in their view, too much emphasis is placed on road-works . . . down come the clamps.

Says a DoT spokesman: 'At the moment, policy on road maintenance is to cut it. I know that we have come in for a lot of criticism from people who are saying not enough is being spent, and we accept that there are genuine fears that standards might fall below what is thought adequate. But the government thinks that there is scope for saving money on things that are really cosmetic treatment for roads and highways.'

The first blow came in 1968–1969, when maintenance spending was slashed by 15%. By the time local government was reorganised in 1974—ironically, just four years after the government-sponsored Marshall Report had recommended standards of road upkeep—less than half of the new county councils had restored spending to their former levels.

In 1975, Whitehall announced more cuts of 15–20%. These were followed by a White Paper spelling out the government's intention to cut local road maintenance by about 6% each year between 1976 and 1979.



EATING OUT

No-show business

IT HAD ALL the makings of a rather stupid practical joke, but the staff at the Rising Sun, close to the little harbour in St Mawes, were beyond seeing the funny side of anything. They had been working since the early hours, preparing breakfasts for guests, when a request came for a table for six non-residents.

No eyebrows were raised. Such calls were relatively common. The chef was warned and the waiter laid the table.

But the six never arrived. Eventually the table was cleared, the

toast thrown away and the stove turned off. Evidently the non-resident breakfasters had changed their minds, and had lacked the courtesy or consideration to inform the hotel.

The trade has a name for people like these, and, surprisingly, it's printable. They're called 'no-shows', and if you think they have nothing to do with you, you're wrong. Inevitably, the 'no-show' brigade is paid for by the customers who *do* show up.

Margaret Costa, who, with her husband Bill Lacy, owns Lacy's Restaurant in Whitfield Street, London (in the shadow of the GPO tower), tells me that Saturday-night no-shows have become a real problem. What happens, she believes, is that couples decide on a night out, reserve tables at several different restaurants, and later turn up at the one which takes their fancy . . . without bothering to cancel the others.

At the other extreme, I have heard of one *over*-conscientious prospective customer who, in the first week of June, telephoned Dugald Jaffray, owner of Banchory Lodge, on the banks of the

Scottish Dee, to book four afternoon teas—for 3 September. 'And could we be sure to have Maggie's homemade greengage jam?'

Of course, some restaurants overbook, sometimes through misunderstandings or genuine mistakes, but sometimes to allow for the no-shows. It may not be too bad if there's somewhere comfortable to sit while waiting to be told that your table is ready; but, at smaller places, would-be diners can find that they have to wait in the street.

A restaurant I knew in Chicago had a large cocktail bar in which diners—even those with reservations—were made to wait for lengthy periods for a table to become vacant. This ensured a good turnover at the bar—and a steady, tax-free income for the restaurant manager, who collected dollar-bill tips from guests who realised slowly that they would never get a table until they paid for it.

The restaurant has since closed down, but the manager now spends his early retirement playing golf at a famous—expensive—Florida club.

Old Cottage

(not yet AA classified)
Ringwood, Hampshire
(tel 042 54 4283)

Excellent value for money. Carefully-cooked dishes and friendly hospitality combine to make this restaurant very popular with local residents, as well as visitors to the New Forest, so booking is wise. Allow time to find your way into the centre of Ringwood (it's poorly signposted), and you'll find the sprawling, white-painted thatched cottage in gardens beside the river. Lunch (Sundays only), from £3.80 for two; dinner (Tues–Sat), from £9.50 for two; wine from £2.40.

Mercury Motor Inn ☆☆☆

Moffat, Dumfries and Galloway
(tel 0683 20464)

Moffat and the hotel restaurant are only a few minutes' drive off the A74 Carlisle–Glasgow/Edinburgh road, one of the main routes into Scotland—a convenient stop for a meal or an overnight stay. A pleasant staff serve dishes that are cooked with imagination. Lunch or dinner for two from £7; wine from £2.60.

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which supplies the surface for many of Britain's roads.

Hamling explains: 'Eighteen months or so ago, some surfaces needed only a simple moisture seal (a thin carpet of stones bonded together by bitumen or tar which, costing 50p a square metre, also restores a road's anti-skid properties). Cuts in spending stopped the work being carried out, so the roads began to crack and craze, and to "fret" on the surface.

'If, last winter, rain or frost got into the foundations, the bill now to rebuild those roads would be £15 per square metre.'

(Just how much this operation has been curtailed is reflected in statistics published by the bitumen industry. In 1973 it sold enough material to cover 28,000 miles of road; in 1976 and 1977, however, this amount dropped to 19,000 miles.)

It's largely through neglect of this sort, declares ACMA, that our roads are set to become progressively worse: 'Until now, the excellence of road building and maintenance up to five years ago have camouflaged the deterioration. This year, though, motorists are really beginning to notice the deficiencies.'

An AA survey of selected roads has noted a 15% increase in potholes in two years, with Scottish roads recording 40% of the total. 'The incidence of unsatisfactory repair-work is common to all regions,' says the report, 'and is indicative of the generally poor standards of repair-work.'

There is no doubt, says the Association,

that the government is taking a calculated chance with cuts. Not only will it eventually cost more to repair the roads, but the vast sums required must inevitably mean that new road-building schemes will suffer as Peter is robbed to pay Paul.

In 90 miles of urban, suburban and country-traffic routes, researchers found a total of 730 defects. On average, there were at least eight faults on each mile of road examined. 'On Britain's roads overall,' concludes the AA, 'there are likely to be 250,000 potholes or similar faults.'

The findings are backed nationwide:

Devon County Council says that skidding accidents on its roads increased by one-third between 1974 and 1976. Like most highway authorities hit by government policy, it is concentrating available resources on roads that take most traffic: town centres, and A- and B-class routes between main conurbations. The result: lesser-used roads in residential and country areas are suffering. In fact, some rural roads in Devon may eventually be abandoned, or revert to bridleways.

Cornwall's county surveyor, Brian Mansell, has watched the cost of road materials soar and his maintenance budget shrink, year by year. Some of Cornwall's minor roads may have to wait 100 years before road gangs get to them.

In the **North of England**, campaigners have followed the AA's January 1977 lead and sent a message to Transport Minister William Rodgers, warning him of the fast

deteriorating situation there on all roads.

Humberside is already trying to tackle what its county surveyor describes as 'serious structural deterioration' in the wake of last year's abnormal weather—drought, heavy rains and an icy winter.

Bedfordshire has warned that some of its rural roads will break up soon, unless the county gets an immediate increase.

Cambridgeshire says that, if cut-backs continue at their present level, it will mean a resurfacing cycle of *once in 386 years* for some of its principal roads, and *once in 1100 years* for many minor roads.

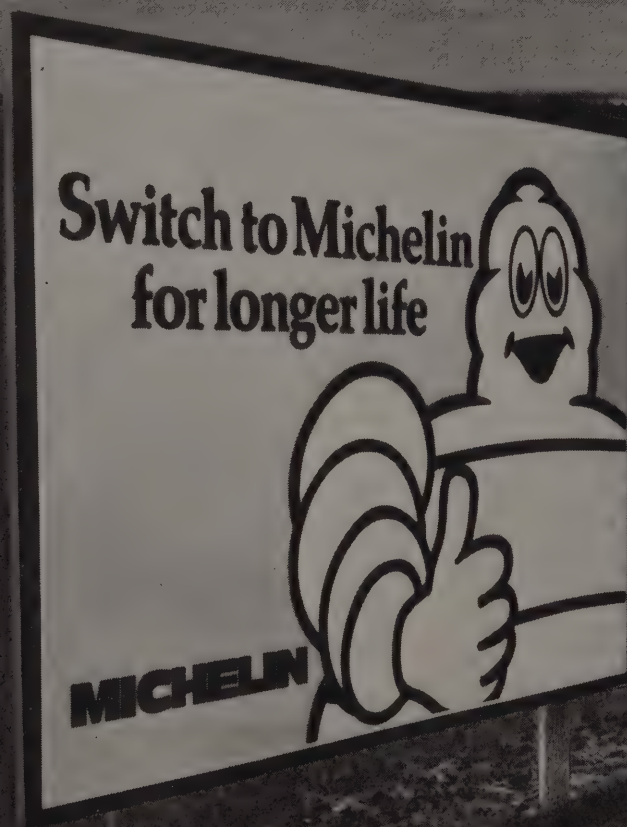
In **Essex**, one casualty of the spending cuts has been the straightening and widening of the A604 in the Earls Colne area near Colchester—where, in May, six schoolchildren and a teacher died after their minibus was in collision with a lorry. Says the secretary of Earls Colne Parish Council: 'The road is lethal at this spot.'

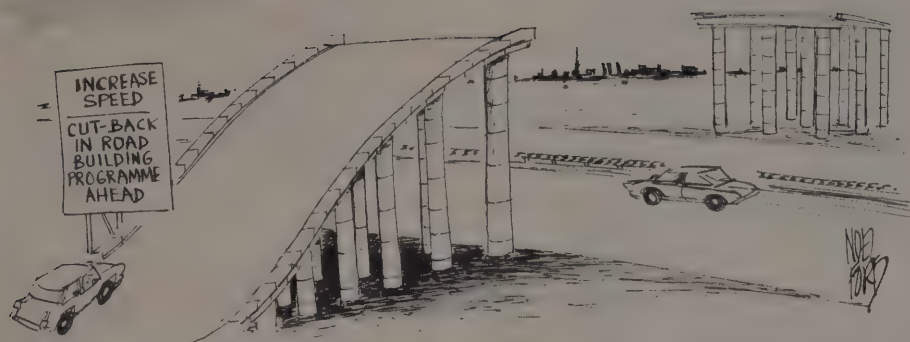
Elsewhere in the county, it is reported that road structure has already collapsed in places because of reduced budgets.

Hertfordshire is considering 'programmed abandonment' of minor roads.

The **Greater London Council**, responsible for the upkeep of nearly 900 miles of roads in and around the capital, cannot keep up with the amount of mileage needing attention. A policy document considered by the GLC 12 months ago warned that it may be impossible to maintain London's roads in a safe condition.

In **West Yorkshire**, where roadwork





spending has declined by 20% over the last three years, the county council has told its gangs to do more patching and resurfacing instead of essential rebuilding.

Even the **Isle of Wight** is concerned about the poor riding quality of its roads and the incidence of skidding accidents...

The Institution of Municipal Engineers blames successive governments for their failure to distinguish between factors affecting road safety and those related to comfort or appearance. 'In practice, no such division is possible,' says the association. 'On a potholed road, one man's

bumpy ride is another man's accident.' Meanwhile, it goes on, the problem is worsening in the country's urban areas—'Declining standards of maintenance are already being reflected in increased claims for compensation.'

In **Tyne and Wear**, insurance pay-outs to motorists whose cars have been damaged by potholes and road faults are expected to top £200,000 this year.

North Yorkshire county surveyor Gerald Leech, heading a government-sponsored survey of the state of the country's roads, says: 'We hope that the results will give

more ammunition for the Transport Minister to bat away at the Cabinet for more money for road maintenance.'

Certainly **Kent** County Council surveyor Allan Smith is keeping his fingers crossed that Rodgers succeeds. 'No one,' he says, 'can foretell when or whether there will be a catastrophic collapse of large sections of our road system. A hard winter of the 1962-1963 type may well precipitate this.'

According to ACMA, most European countries, which have also cut back on road spending on economic grounds, have gone about their pruning more sensibly. Like Britain, which has slashed the budget for road construction by 50% since 1973, they, too, have cracked down on new highway building. *But, unlike Britain, they have diverted some of the revenue saved into keeping up standards of maintenance.*

Clearly, this is the policy that the government here should be adopting. And unless it does, says ACMA, Britain will end up like some American states—with indescribably poor roads once you get off the motorways and trunk routes.

Brian Hamling spells out the dismal prospect facing motorists. 'I can see the time,' he says, 'when the AA will be giving its members journey-advice based on roads with the least potholes.'

'Most worrying of all,' he goes on, 'I can even see it one day advising drivers to head for another destination... because the road doesn't go there any more.'

TONY FREEMAN and ROY JOHNSTONE



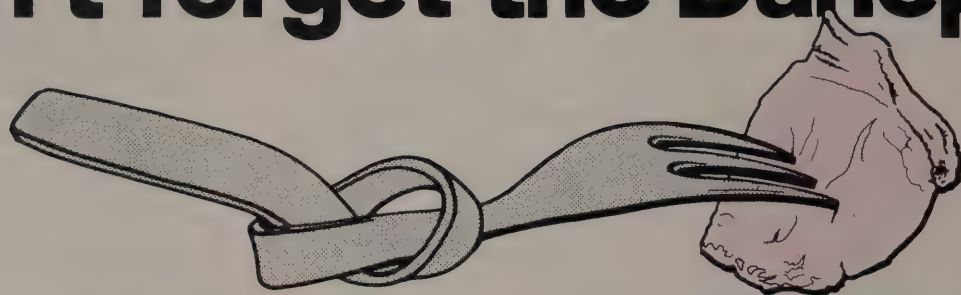
Michelin were the first to develop the radial tyre. And have been keeping one step ahead of the competition ever since.

Unlike other manufacturers who still make cheaper cross-ply and textile braced radial tyres, Michelin only make steel braced radials which grip better in the wet and dry, stop without fuss, last a lot longer and have a lower rolling resistance so can reduce your fuel consumption.

And you can start switching in a small way, two wheels at a time, on the same axle. But always consult a tyre specialist.

Switch to Michelin.

Don't forget the Danepak!



And enter the 'Forget-me-knot' Competition



Here's a great opportunity to win one of these ten super 'Beefeater Rancho 2010' Danish Barbecue sets. The 'Rancho' is a Barbecue and serving trolley combined, with wheels and handle for easy moving. Fittings include a tool rack, bottle rack, chopping board, basting dish, large condiment shelf/plate warmer and a grill hood. And there's a full range of accessories – tools, tongs, skewers, charcoal and lighting fluid. In fact, everything you need for super barbecues!

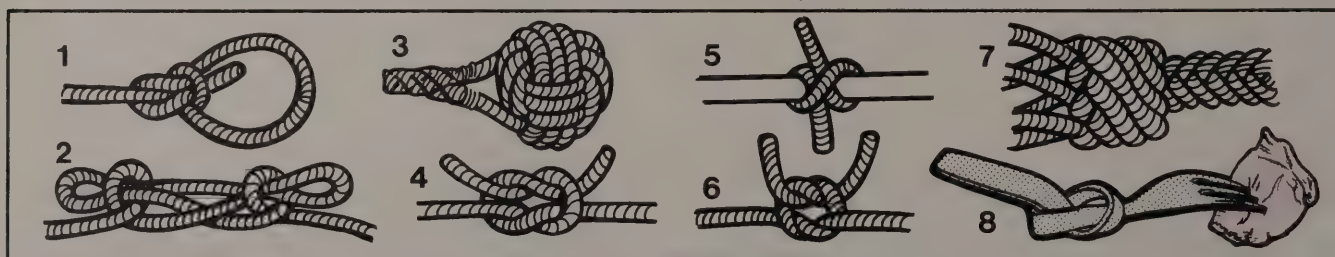
We've illustrated eight knots and listed each of their names in the entry form.

All you have to do is to give each knot its correct name, and then complete the sentence in the entry form as originally as you can, using not more than twelve words. In the event of the competition being tied (sorry!) this will decide the winners.

10 SUPER DANISH BARBECUES
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Finally, fill in your name and address, and post your entry form along with the 'Danepak' namestyle cut from any pack of bacon rashers, steaks or joints.

Danepak bacon is ideal for meals at any time of the day. Vacuum-packed for freshness and convenience, you can take it anywhere – on camping, caravanning, boating or any self-catering holiday. You can always enjoy the same great Danish flavour!



ENTRY FORM

1. Enter the correct illustration number against the name of each knot. If, for example, you think that illustration 5 shows a Sheepshank, then enter figure 5 against "Sheepshank" below – and so on with the other seven knots.

Granny Knot Reef Knot Sheepshank
Clove Hitch Bowline Monkey's Fist
Sinnel 'Danepak' Knot

2. Complete the following sentence using not more than 12 words as originally as you can: –

Danepak bacon is great for the outdoor life because _____

3. Name _____
Address _____

Send this form together with the 'Danepak' namestyle cut from any pack of bacon rashers, steaks or joints to arrive no later than Thursday 31 August 1978 to: – 'Forget-me-knot' Competition
Danepak Ltd Caxton Way Thetford Norfolk IP24 3SB.

COMPETITION RULES

1. This competition is open to all UK residents except employees and their families of Danepak Ltd., their advertising agent, or anyone connected with the competition.
2. Prizes will be awarded to the ten entrants whose illustration/name pairing is correct and whose tie-breaker is, in the opinion of the judges, completed most originally. In the event of a lesser number of correct entries, the tie-breaker will be used as the deciding element for the balance of the prizes. There is no alternative to the prizes stated.
3. All entries will be judged by a panel representing Danepak Ltd. The decision of these judges will be final and no correspondence will be entered into.
4. All entries must be made on an official entry form and received by 31-August, 1978. Entries received after that date will not be considered, nor will damaged, incomplete or illegible entries. Proof of posting will not be accepted as proof of delivery. All entries will remain the property of Danepak Ltd.
5. Winners will be notified by post and their names will be available by sending a stamped, addressed envelope to the competition address.
6. Competitors can enter as many times as they wish provided each entry is accompanied by the stated proof of purchase. No competitor may win more than one prize.
7. Participation in the Danepak 'Forget-me-knot' Competition implies acceptance of the above rules.





WHAT'S NEW

Light fantastic

IT'S HERE! The first, and only, completely maintenance-free vehicle battery on the European market. Introduced by the AC Delco division of General Motors, the Freedom Battery has been original equipment in some GM vehicles in the States—mainly buses and other commercials—since 1970. This year, it will be fitted as standard to all US-built GM cars.

With a claimed lifespan of about 300,000 miles, no need to be topped up, stainless-steel, corrosion-free terminals, and lead-calcium plates that keep it charged much longer than a conventional battery when it is not in use, it is certainly unique.

Although the Freedom is completely sealed with a lifetime's supply of electrolyte, testing is simple: an indicator shows green when all's well, black when recharging (in the normal way) is needed.

Although its weight is not much different from that of an ordinary battery, the Freedom is rather bulky, so needs more mounting space. However, its fit-and-forget quality means that car designers won't have to give the same consideration to topping-up accessibility.

It is currently available in nine models for commercial vehicles and light vans, and, if evaluation tests being carried out by British car makers prove satisfactory, it should mean Freedom for the masses.

Time was—indeed sometimes still is—when it took two men and a crowbar to check steering and suspension slackness in a car. Kismet Dynaflex looked at this technique, and reckoned that things hadn't changed much since Boadicea had her chariot serviced.

The result: Checkwear.

Checkwear consists of a pair of pneumatically powered steel plates (mounted to each of the two platforms of a normal four-post car hoist) and an inspection lamp with a two-way thumb-switch in its handle that controls the plates.

The car is driven on to the hoist until the wheels are positioned on the Checkwear 'wobble' plates. The operator stands under the hoist, shines the handlamp at the components to be checked, then turns on the switch that sets the plates oscillating. He can then see and feel any wear in swivels, kingpins, and so on.

The complete operation, including driving the car on and off, takes only a few minutes of one man's time, and it has the benefit of providing accurate and repeatable testing conditions.



Allegro without aggro

The membership of DRIVE's long-term test club this issue grows to three with the arrival of a new Austin Allegro 1300 Super for Peter and Jackie Murray from Somerset. He, in turn, handed it straight over to the AA's engineers for the first of the experts' exhaustive inspections that will chart the next 12 months of this family saloon's life. Meanwhile, David Jones makes pit-stop No 3 in his Ford Cortina, and pilot Tony Colin drops in with his Alfa Romeo Alfasud 1300ti for the second entry in its long-term logbook...

IT WAS HALF a car that first took Peter and Jackie Murray's fancy—a dissected Austin Allegro displayed in the window of their local garage in Burnham-on-Sea, Somerset, to catch the customers' eye. And it worked.

'We walked in, and also saw a *whole* Allegro, so I asked for a test drive,' says Peter. 'I had half an hour at the wheel. Jackie was too shy to have a drive while the salesman was in the car, but he didn't lean on us at all; compared with other deals in the past, this one could almost be described as casual.'

Economy and reliability are the Murrays' main requirements of their new car. Running a home for the elderly in Burnham means that they cannot afford to have their car off the road for long.

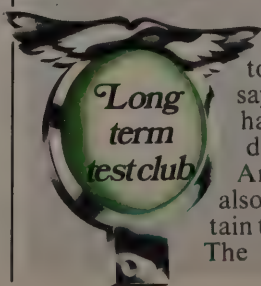
'My wife was keen to buy a Citroen GS,' says Peter, 'but it would have meant a 20-mile drive for a service. And I believe it would also cost more to maintain than a British car.'

The Allegro, of course,

has often performed well in DRIVE's Index of Motoring Costs, and Peter was further attracted by the Leyland Superdeal that the Foundry Garage, Burnham, offered on their 1974 Vauxhall Viva—a part-exchange price of £1150 left him to find £1731.83 to put his new car on the road for 1 April, complete with a year's tax. 'I didn't even visit another dealer, the offer was so good.'

The garage also swapped over the child's safety seat and harness for the youngest of the Murrays' two children—Suzanne, two, and Jason, 10. It was here that AA engineer Barry Hay made his first check—and found the washer missing from one mounting point, causing the nut to fray the car's trim. Another minor fault was a missing knob from the child-proof lock on the nearside rear door, making it a fiddly job to prevent the rear door being opened by young fingers.

Giving the Allegro's body a 24-point examination, Hay found no evidence of corrosion, unlike our two other long-term test cars (although, to be fair, they were scrutinised more exhaustively; the Allegro's day is yet to come). The boot



lid, however, was misaligned and the interior rear-view mirror was loose on its mounting.

Hay also spotted a rattling glovebox lid—something that the Murrays had already found annoying—but nearly missed a bad paint-run in the metallic paintwork (a £28 extra) around the petrol filler cap. The whole panel required respraying.

Under the bonnet, the front-wheel-drive engine's ignition had been adjusted 11 degrees out, making it idle far too quickly at 1200rpm, but Hay went on to give the electrics, steering, suspension, exhaust, clutch and gearbox a clean bill of health.

The Allegro hit its lowest note when he spotted a dark, sticky pool collecting on the ground under the nearside half-shaft: the oil leak past the shaft's seal was bad enough to be graded an essential repair—'It's severe, and if it isn't rectified quickly it can only get worse.'

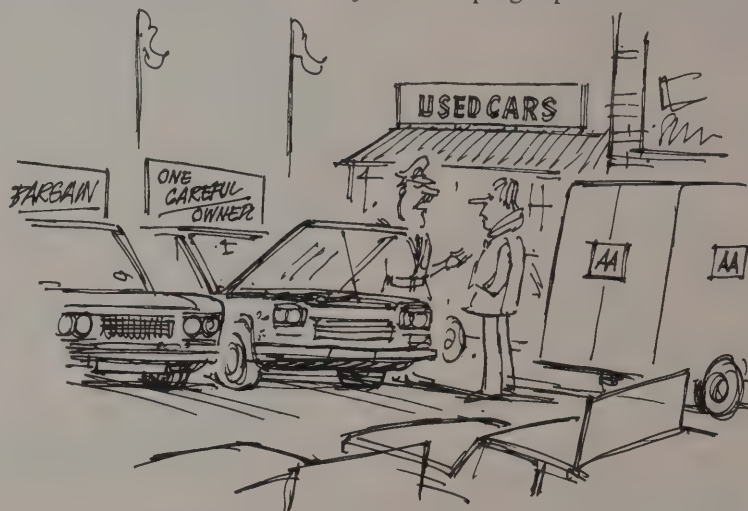
'Yes,' said Peter, 'I'd noticed oil on the garage floor, and I was worried about it. I'll go back to the dealer and complain.'

It sounded rather worrying, but the AA

engineer was able to reassure the Murrays: 'This Allegro is comparable with any car in this price bracket. Provided the faults I've found are put right, it's in acceptable condition. Underbody protection is adequate. Will the car last? We will just

have to wait and see about that, won't we?'

And that is precisely what DRIVE will be doing over the next 12 months, with Peter and Jackie's car next appearing for scrutiny after it has carried them on a camping expedition to France.



'Being an ex-hire car, it's had one careful owner... but a thousand careless drivers'



ALL'S FAIR FOR ALFA

JUMBO-JET PILOT Tony Colin, 32, fell in love with the Alfasud 1300ti after a two-mile demonstration drive. His new Sud eventually arrived this January, with 50 miles on the clock...

Check 1 DRIVE found that Colin's car had been Endrusted too late—rust on the inside of one wing was already two or three months old. The battery had been flattened by a spotlight that stayed on all night, the driver's door fitted

badly, and its faulty catch had trapped him inside on arrival at the AA's test centre. He departed a wiser but still happy owner, looking forward to a long, fast drive to Holland.

Check 2 The Sud quickly clocked-up the 1500 miles required for a first service, and returned to Ormsby Cars of Reading. There, a fastidious owner met an equally conscientious Alfa dealership. Colin complained about minute chippings of the boot lid's paintwork and a hair-line scratch on the bonnet: the garage resprayed both panels. Prematurely pitted chrome on the rear-view mirror was solved with a replacement—and the garage told him that the rev counter was inaccurate and would be replaced free of charge.

When the car reappeared for its second DRIVE check-up, Alfa engineer Chris Warwick had to

admit: 'I can't find anything wrong with this car. My only criticism is the slight overspray on the offside rear-window glass and exterior door handle.' But it was very, very slight, and we refused to give him even half a point for that.

Colin was ahead of Warwick on DRIVE's tour of the car, and he drew the AA man's attention to the lower extremities of the front body panelling and the rear faces of the door assemblies, where a lack of paint adhesion was allowing the primer to show through. The problem was aggravated by the doors' poor fit, which was rubbing off paint. 'It's a pity you have to throw the doors at the car to close them,' observed Warwick. 'It's a common feature with Alfasuds.'

Farther on, he discovered two square holes in the bootlid, partly

concealed by the numberplate, that needed sealing to prevent water creeping in.

Underbonnet, everything was well—although the brake-fluid reservoir was leaking on to the surrounding paint and the engine's idling speed was set 300rpm above the specified 800–900rpm. On the road, all that Warwick noted was a slightly misaligned steering wheel.

A happy Colin (since our last issue the proud father of a baby daughter, presented to him by his Dutch wife, Sjaan) commented: 'Assuming the odometer is correct, I averaged 30½mpg on a trip to Holland and 29½mpg on the way back. A brim-to-brim check at home showed 28½mpg, but since the service it has risen to 31mpg. The Continental run was a delight—the car just creamed along.'

KEEPING UP WITH THE JONESES

DAVID JONES, 27, manager of a fuel-supply company at Heathrow Airport and founder member of DRIVE's long-term test club, bought his new Ford Cortina 1600GL automatic last November. He visited the AA's engineers the next day...

Check 1 revealed rust inside the day-old car and a careful respray of the front nearside wing after a pre-delivery knock. DRIVE's engineer made good a loose fuel line, and David resolved to cure the irritating wind-noise from the front passenger door's ill-fitting window.

Check 2 David is no fan of the garage trade, but, for DRIVE, he took his car back to his Ford supplier in April for its first 1500-mile service. It was thorough,

but that window was still a bad fit. And to prevent the engine dying on cold mornings, David had to keep the revs well up when stationary—resulting in a mere 20mpg average for his daily commuting. A competent DIY man, he resolved to fix that window himself...

Check 3 Friary Motors of Old Windsor, Berks, is certainly doing its best to alter David's firm views about the garage trade. At the beginning of May—still short of the Cortina's 6000-mile service—Jones took his car back to the dealer, complaining about the cold-morning performance of the automatic choke. 'Friary Motors told me that the linkage between the carburettor and the choke had come apart, and that they wanted the car the next morning to repair it. As I was due



to take my wife Julie to hospital for an ante-natal check up, the garage lent me a Ford Fiesta for the day—a smashing little car. When I took it back, next morning, my Cortina was fixed.'

David is hoping that the repaired choke will improve his Cortina's modest mpg, but, meanwhile, another niggle has appeared—a continuous squeaking from the brakes at slow speeds. 'I was going to whip them off and have

a look,' says Jones, 'but I haven't had time. It only comes intermittently now, but it's there.'

And that windy window? That's still there, too. Now an expert on the problem, Jones explains: 'If you wind it right down and then ease it into position, it fits properly. But if you just roll it up and down in the normal way, it drops forward, leaving a gap.'

'One window specialist broke the original window trying to make it fit. In the end he admitted that the screws holding the window channel were rounded-off, making them impossible to adjust...

'Apart from that, I'm happy. I wanted to fill in that scratch near the front bumper that the AA engineer found on his first inspection, and Friary Motors gave me a free tin of paint. I'm very pleased with them.'

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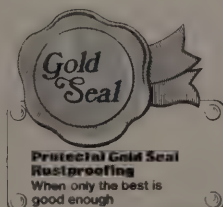
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Knutsford 0606-6141
CLEVELAND
Hartlepool 0429-72878
Middlesborough 0642-210967
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Aspatria (Carlisle)
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Carlisle 0228-26246
Kendal 0539-23534
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Shirland 077-383 4554
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Barnard Castle
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Eastbourne 0323-35042

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Altrincham 061-928 4408
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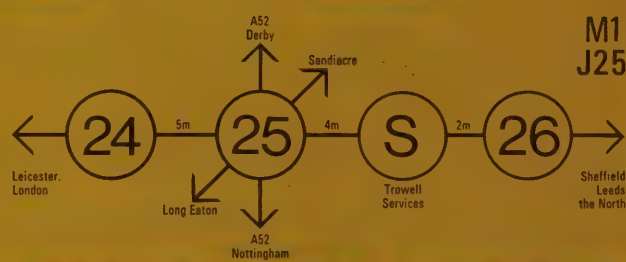
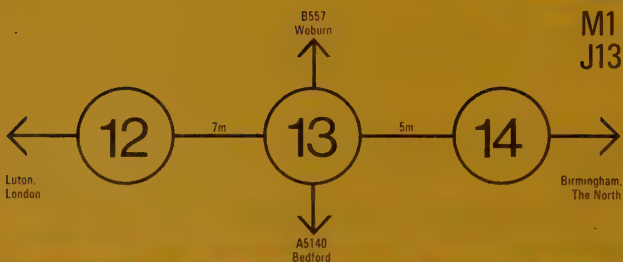
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Mileage _____

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Telephone: Barnard Castle 3638.

JUST OFF



1 Halt garage, 24hr breakdown service (day, Woburn Sands 583247; night, Milton Keynes 678162) **2** The Royal Oak, Greene King **3** The Royal Oak, Greene King **4** Black Horse, free house **5** White Horse, Whitbread **6** The Anchor, Wells **7** The Bell, Ind Coope **8** Rose and Crown, Wells **9** Woburn Wine Lodge **10** Bedford Arms Hotel (Woburn 441) **11** Fir Tree Hotel, Wells (Woburn Sands 582127) **12** Swan Hotel (Woburn Sands 583204) **13** Holt Hotel **14** Woburn Abbey and Wild Animal Kingdom **15** Brogborough Hill picnic site

M1 Junction 13 ¶If you are not one of the several hundred-thousand visitors who turn off this junction just to visit Woburn Abbey and its multifarious delights every year, you can do worse than wander into Woburn Village to find refreshment at the Woburn Wine Lodge—a splendid glass of wine for 50p and a variety of salads. Or enjoy plain English food at The Black Horse . . . Lots of accommodation in the area, with The Bedford Arms Hotel at the top end of the market. The Bell has limited accommodation. It's not a good junction for petrol, but the Halt Garage workshop is open from 8am (Sun 10am) to 10.30pm.



1 Risley garage, 8am (9am Sun)–8pm, 24hr breakdown (Nottingham 398472) **2** Burnetts, 7am–10.30pm, workshop **3** Burdon and Cox, 8am (9am weekends)–10pm (6pm Sun) **4** Lindleys garage, 8am–7pm (5pm Sat, closed all day Sun) **5** Bulls Head, Marston **6** Trent Navigation Inn, Home **7** Steamboat Inn, free house **8** Harrington Arms, Hardys and Hansons **9** Grange Farm Restaurant (Long Eaton 69426) **10** Wilmot Arms and Stable Restaurant (Derby 672222) **11** Firs Hotel (Draycott 2535) **12** Europa Hotel (Long Eaton 68481) **13** Camden Hotel (Long Eaton 62901) **14** Nottingham Post House, buttry, 6am–10pm (Nottingham 397800) **15** Elvaston Castle Country Park

M1 Junction 25 ¶No one in his right mind would want to linger long here, yet, leave the motorway behind, and there's everything one could want at the most reasonable prices. Some of the cheapest petrol is available at Burdon and Cox—although that's too far unless you want to fill an empty Rolls-Royce tank, in which case the saving could almost buy the price of a meal at The Stable Restaurant. Best 'noshery' is the Grange Farm Restaurant, where a gigantic five-course supper with coffee is still less than £4; more like a posh canteen.

KEY
to map
symbols



SHOP



TELEPHONE



FISH AND CHIPS



GARAGE AND
BREAKDOWN



PUB



HOTEL



B&B
BED AND
BREAKFAST



POTTERY

THE MOTORWAY

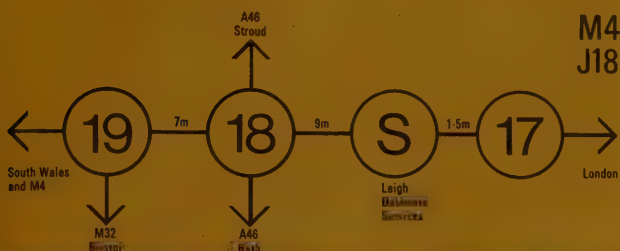
John Slater, 36-year-old freelance director for Granada Television's *World In Action*, commutes regularly on motorways between London and Manchester. Like most drivers, he stops en route for refreshment and fuel and to use the lavatories. But he no longer considers stopping at a service station, preferring instead to drive a few miles off the motorway to find a small garage and a quaint pub where prices are cheaper and the service is more personal.

So marked is the difference in standards, says Slater, that after four years' research he has been able to draw up a long

personal list of favourite places. This has grown into *Just Off The Motorway* (Pan Books, £1.75), a guide to help the more 'adventurous' driver and his family to find something more attractive than is offered at most of Britain's motorway service areas.

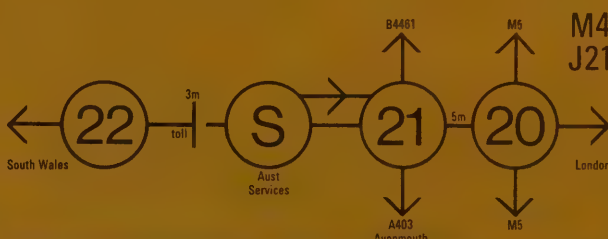
Slater noted, in places, that petrol was up to 15p a gallon cheaper; food, when not costing less, was much more varied; and there was usually quicker service—and sunnier smiles with it.

Eventually he discounted places more than half an hour's drive from each junction. On these pages, is a random selection of 10 junctions on five major M-roads, each with a map keyed to show the range of off-the-motorway services available, and exactly how to get to them.



- 1 Oakcrest garage, 8am–6pm (closed Sun); summer opening to 9pm, incl Sun), breakdown (Chipping Sodbury 312044)
- 2 Jones Bros, 8am–6pm, (half-day Sat, closed Sun)
- 3 The Crown, free house
- 4 The Bull, Wadworth
- 5 Compass Inn, free house, b&b (Badminton 242)
- 6 Dog Inn and Restaurant (Chipping Sodbury 312066)
- 7 Cross Hands Hotel and Restaurant (Chipping Sodbury 313000)
- 8 La Capanna Restaurant (Chipping Sodbury 318604)
- 9 Tollgate Café
- 10 Dornden House b&b (Chipping Sodbury 313325)
- 11 Dyrham Park, May–Sept 12am–6pm
- 12 Dodington Park, 11am–6.30pm
- 13 Picnic spot

M4 Junction 18 Both the Oakcrest Garage and Jones Brothers offer some saving on motorway petrol prices, but you must be prepared to travel two or three miles to get there. For convenient pub food, choose either The Compass or The Crown: the menu at The Compass is longer and more varied, but its beer is dearer; the Crown sometimes serves steak-and-kidney or cottage pie for less than £1. At The Dog, in Old Sodbury, you can find snails in garlic. The children will love you for buying them exquisite, homemade chocolate cake from the Tollgate café (but watch its erratic opening hours)!



- 1 Forge service station, 8.30am–6.30pm (noon Sun), tyre service
- 2 Tockington service station, 24hr breakdown (Thornbury, day 414670; night 414812)
- 3 Pilning garage, 8am–8pm, 24hr breakdown (day, Pilning 2909; night Thornbury 412402)
- 4 Boars Head, Courage
- 5 The Plough, Wadworth
- 6 Cross Hands Inn, Courage
- 7 Kings Arms, Courage
- 8 Redwick Stores
- 9 Whale Wharf
- 10 Old Passage
- 11 New Passage

M4 Junction 21 The choice is clear: either turn off for Aust motorway services or leave the motorway for a few miles and save up to 8p a gallon at the Forge Service Station or, farther afield, at Pilning Garage, whose services include a general store and b&b. At the Plough, a warming bowl of homemade soup is cheap and tasty. The Boar's Head in Aust has a garden, and can offer an imaginative seafood pancake for much the same price as a fry-up at Aust services. (Best one can say for that is that it offers a good view of the Severn Bridge.) At New Passage there is a 'dead' hotel, but its parking area and garden can be used.!



POLICE STATION



PETROL



PICNIC SPOT



SWIMMING POOL



MUSEUM

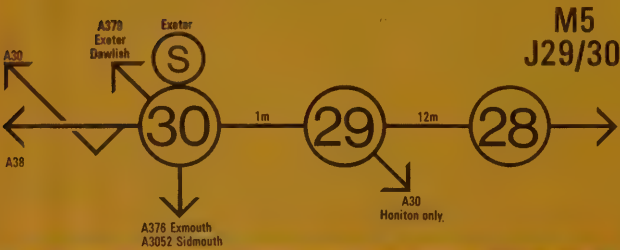


RESTAURANT



WINE BAR

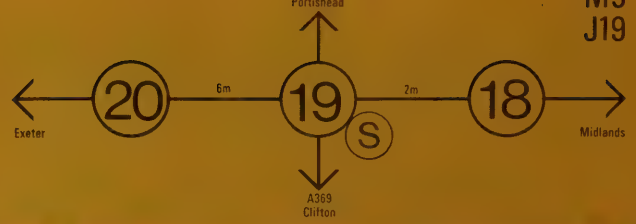
M5 Junction 19 The Clifton Suspension Bridge is four miles away, and here's your chance to see it. But you don't have to do a Sarah Ann Henley: in 1885, she leapt feet first off the bridge and survived—her long Victorian skirt acted as a parachute on the 250ft fall to the Avon. On either side of the Avon Gorge are lovely places to relieve the motorway tedium. On the nearside is the Ashton Court Estate and the Avon Gorge Forest with a variety of walks; on the far side, Clifton Downs and, not far away, in Syon Place, The Coronation Tap—a proper cider pub. Another is The Black Horse in Clapton-in-Gordano, a dark and low-ceilinged Courage pub on a long winding road, and worth the journey.



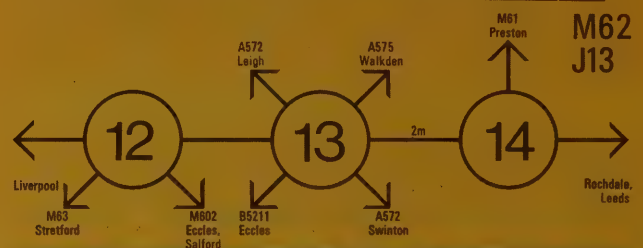
1 C&P Motors, 24hr breakdown (day, Topsham 4425; night, Exeter 66567) 2 Supreme Heavtree filling station, 24hr petrol (ex Tues, Weds nights) 3 Standfield and White, 7.30am–7pm 4 Middlemoor service station 5 Exeter service station, 7am–10pm (9pm Sun) 6 Bridge Inn, free house 7 Diggers Rest, free house 8 Blue Ball, Whitbread 9 Half Moon, Whitbread 10 Cat and Fiddle, Whitbread 11 Peter Fender, wine bar, shop, restaurant 12 Black Horse transport café, 6am (8am Sun)–11pm (4pm Sat), b&b (Exeter 67681) 13 Ivington Farm (Topsham 3290) 14 Newcourt Barton Farm (Topsham 3176)

M5 Junction 29/30 Close to Exeter, in the West Country, this is one of the prettiest junctions in the country. Among the attractions are Peter Fender's café, restaurant, wine bar and shop (good coffee and wide range of cheeses), the ancient Bridge Inn on the banks of the River Clyst, with real ale, ploughman's lunch and pasties, the Blue Ball Inn (mackerel with gooseberries or mustard sauce for less than £1.50); the Diggers Rest (home-cured ham, crab sandwiches and draught Bass), and good b&b at Newcourt Barton and Ivington farms—both peaceful working farms.

M62 Junction 13 Well-worth straying off the motorway to visit the beautiful village of Worsley, with its charming houses, rich woodlands and the shiny red waters (yes—red!) of the Bridgewater Canal. The canal was cut by the enterprising Third Duke of Bridgewater, who mortgaged most of his property and reduced his personal income to £400 a year to finance the operation. Nearly 40 years later—at the end of the 18th-century—income from the canal topped £80,000 a year. Canal enthusiasts can obtain a guide to the waterway from the Lantern Gallery, which also serves tea and coffee.



1 Station garage (Portishead 842180) 2 Greens filling station, 7am–8pm (8am–6pm Sat; 9am–5pm Sun) 3 Markham filling station, 8.15am–7pm (shorter at weekends) 4 Pill service station, 24hr petrol machine 5 Black Horse, Courage 6 George Inn, Courage 7 Railway Inn, Courage 8 Kings Arms, Courage 9 Duke of Cornwall, Courage 10 Rolfe's Eating House 11 Captains Table, fish and chips 12 Royal Hotel, Bass Charrington 13 Merrythought restaurant



1 Walkenden Road service station, 8am–10pm (shorter weekends), workshop during week, tyres, exhausts) 2 Swinton service station, 7.30am (9am Sun)–10.30pm 3 Bridgewater Hotel, Boddingtons 4 Cock Hotel, Boddingtons 5 White Horse, Boddingtons 6 White Swan Hotel, Holts 7 Staff of Life, Tetley 8 Casserole Restaurant, closed Sun, Mon (061-794 2660) 9 Lantern Gallery, closed Sat, Sun am, Mon 10 Worsley Wood 11 Bridgewater Canal

A good automatic is like a good horse—willing and obedient without use of the crop. But should you go for a thoroughbred such as a British Rover or a German Audi, or are there bargains to be had in Ford's multinational selling-stakes?

Rover 2600

Price £5991 On the road £6091

A LITTLE BIT OF WHAT YOU LIKED

The big V8-engined Rover 3500 that was launched in 1976 showed the world just what Leyland's design team (now called BL Cars) can do if given a free hand. Brain-child of Spen King, the car went on to receive more awards and acclaim than any other car in living memory, including the European Car of the Year title and an AA Gold Medal; its contribution to safer motoring was recognised by the Don Safety Award (virtually owned at the time by Volvo); and its svelte good looks earned it the Style Auto award, the major international beauty prize.

Meanwhile, further down the social ladder, Leyland was pushing hard with the Princess range, and, in the gap, two old faithfuls started to show their age: the Rover 2200 and the Triumph 2500 would have to go...

Enter two totally new straight-six engines—one of 2350cc and the other 2597cc—tailor-made for the new Rover body to give a marked advantage over some four-cylinder and, declared Leyland executives pointedly, five-cylinder competitors.

Well, now we know who the opposition is; DRIVE fielded a Rover 2600 with automatic box for the home side.

How it goes

Leyland's 2600 philosophy seems to be 'Keep things simple and they'll be reliable', so the new engine features an aluminium-alloy cylinder head, overhead camshaft, and twin carburettors but not the 3500's electronic ignition. But why, in this class of car, fit an antiquated manual choke? Cold starting, though easy, isn't prompt, and the choke has to be left out for two miles or so. Driving, say, three miles to the office would cost 15½mpg, and DRIVE's six-mile suburban test achieved a figure of only 18½mpg.

Overall, though, the Rover 2600 automatic is a nice surprise, giving 24½mpg over a 1000-mile test course. A gentle potter gave 27½mpg, and motorway driving returned a full-marks 26½mpg.

And there's pace as well as parsimony—the road testers saw 117mph, hurtling into the test track banking with a tail-wind, and a true best of 109mph.

Forgetting the fuel gauge and



flooring the accelerator produces the slowest 0-60mph time of this group—12.6sec—but a clever kick-down on the Borg Warner auto box produces a 30-50mph time of 4.5sec, the equal of its 3500 big brother. There is nothing to be gained by using the manual over-ride.

The gear shift itself takes time to get to know, and, even after a week at the wheel, some DRIVE testers were still finding reverse by trial and error—the selector is rather vague on this point. Otherwise, the action is sweet once its pattern is committed to memory (a dog-leg round neutral prevents crashing from D into reverse).

Simplicity rules again in the suspension, with a torque-tube rear axle and constant spring rates replacing the original Rover 2000 set-up of (expensive) de Dion back end, although sophisticated self-levelling dampers are retained.

With the almost-universal independent struts and anti-roll bar at the front end, DRIVE's testers felt the handling was, in fact, better than the de Dion system's, but the new Rover's ride wasn't so convincing. Although the best of this trio, it can still jitter and bob like the Audi. BL can do better—and has with Jaguar.

On the other hand, the 2600 is as quick on corners as the sure-footed Audi, and the power steering (an option on the test car) is just as informative and well-weighted. One tester had the good grace totally to reverse his earlier view that the handling felt ponderous.

Again, like the Audi, a Rover pushed to its limits merely runs wider as it corners faster, and never threatens to slide its tail in the dry, with Pirelli radials gripping like fat leeches.

The other side of the coin is just as good: a sensible 70lb push on the brake pedal produces the perfect 100% best stop—fade free, too—and just two prods restore full efficiency after a soaking.

Inside story

Car-shoppers tempted by the trend-setting exterior of the Rover

Automatic choices



2600 will probably be seduced by its futuristic interior, too. But old Rover loyalists certainly won't recognise the animal.

Some drivers complained about the seat being too high, the screen-top too low; but after playing with the adjustable steering column (reach and rake) they all in turns came to terms with it in satisfactory comfort.

Everyone, however, had unkind

words for the instrument panel, which appears to have been designed in isolation and just dropped into the car. It possibly looked marvellous on a test bench, but put a steering wheel in front of it and some of the smaller dials are obscured, however it's adjusted. Supplementary instruments include a battery-condition indicator and an oil-pressure gauge, and there are 11 warning

POWER GAMES

How to play

Eight days make a week for each car put to the test by DRIVE. Here, on road and track, to give greater insight into our findings and our figures, the story of this issue's Ford Granada 2.8GL estate (test report on pages 35-36)

IN A WEEK'S WORK

ALF BELSEN is something of a legend at Ford Motor Company, respected as much for his ability to work minor miracles as his engineering expertise.

Alf's in charge of Ford's service garage at Brentford, Middlesex, where he looks after Ford's substantial fleet of road-test vehicles; much of Ford's media prestige lies in his hands. A car may be delivered back from testing by a newspaper, magazine or television company, dirty, out of tune and damaged—and it's Alf's job to ensure that it goes out again next day fit to face yet another gruelling appraisal.

Peter Denayer, the AA's chief road tester, acknowledges that Alf does a good job (unlike others he could name). 'People assume that road test cars are specially prepared' says Denayer. 'In fact, the reverse is generally true. We always have to check them to make sure that they're good enough to test.'

DAY 1

The Ford Granada 2.8GL estate borrowed by DRIVE for week-long, 1000-mile test

was in good shape when Denayer collected it from Brentford. The inside of the screen was filmed by cigarette smoke—non-smoker Peter Denayer notices things like that—but it didn't disgrace its maker.

First stop with any test car, however, is the AA's tech-

nical research centre at Basingstoke. It's there that every car is checked against the manufacturer's written specification to ensure that ignition timing and carburation are correctly set. Granada verdict: good—helped by transistorised ignition and a

contactless distributor that allows less margin for error.

Among other things checked . . . seatbelts—are they locking correctly, are the mountings secure? No tester wants to find out the hard way. All fluid levels are inspected, too, along with tyre pressures



Road testing is the Denayer family business—even the dog contributes his hair to the back-carpet brush test

(set to the manufacturer's handbook settings, and altered only if the handbook recommends doing so for higher speeds or loads).

Part of the AA lab check is carried out on the rolling road dynamometer to record the accuracy of the car's instruments — speedometer, odometer and, where fitted, tachometer are often hopelessly optimistic, rarely pessimistic. This can mean that you are travelling at 64mph in the middle of an annoying 'boom' period when the speedo says 70, and you're too law-abiding to rise above it. The Ford Granada emerged with an under-reading mileage recorder; if this hadn't been spotted, DRIVE's overall fuel consumption would have been 18mpg instead of 21.

At the end of Day 1, the big Granny was ready. It would give its best, or its worst. No more, no less.

DAY 2

On the road. All cars tested by the AA are road cars, and, though certain specific performance tests are run on closed test circuits, cars are always judged for *their particular purpose*.

The big Ford estate is designed as a versatile, multi-purpose car . . . so, while Denayer notes his initial impressions, his wife Gill takes nine kids—only two of them are the Denayers' own!

—down to the youth club near their Essex home.

'I never rely on initial impressions when I'm writing the test,' says Denayer, 'but it's useful to refer back to them after a week with the car. After all, a quick half-hour round the block may be all that a buying customer gets from a dealer before he makes up his mind.' First impressions can be unfair: the Granada's steering, noted Denayer, felt too light and insensitive on first acquaintance, yet after driving the car for 1000 miles, he was far happier with it.

If the weather is right—dry, and not too windy—Denayer will begin the complex routine of fuel-consumption tests. With the exception of the constant-speed tests, these are all carried out in real-life driving conditions. The only difference is that the test car is fitted out with an electronic flowmeter to monitor the precise amount of fuel used over test routes. (Last issue's supplement described in detail how the AA/DRIVE fuel tests have been devised and operate.)

DAY 3

An early start sees Denayer and AA colleague Richard Taylor on their way to the Midlands. This is the day when the Ford Granada will show what it's capable of—ultimate performance, handling—but *off* public roads.

Their destination is the Motor Industry Research Association proving ground at Nuneaton, Warwickshire, probably the most comprehensive vehicle-test facility in the UK, with speed and acceleration, ride and handling courses and a variety of specially created surfaces to simulate the worst that any vehicle is liable to encounter.

MIRA days provide much of the essential data in our road-test reports. In no way do they over-shadow the intensive, day-to-day use that comprises the bulk of the 1000-mile test, but they allow tests that can be checked, and repeated, in the safety of a closed track.

Well, relative safety. A car pushed to its limits on the handling course can bite back, and, at high speed on the banked circuit, any incident can be a major one. Denayer has stepped from another Ford covered in blood and feathers after a pigeon smashed through its windscreen.

DAY 4

With three cars in each AA/DRIVE group test, one day is allocated to swapping cars between testers so that they can cross-refer notes and impressions. Peter Denayer takes on Leyland's Rover 2600 for the day, and does a lot of talking into his tape recorder.

To make sure that the test

report isn't just one man's ideas and reactions, we try to collect as many and varied reactions to each car as possible. Richard Taylor takes the Granada home from the MIRA day. In the next 24 hours, he and Denayer will 'talk' to each other via tape recorders about both the Granada and the Rover. There's a clear understanding between them that the man who is working on the particular test report will listen carefully to the other's comments, but ultimately he will decide what is worth including: superficial impressions can be misguided, even from experienced testers.

DAY 5

Back to the laboratory, and a testing day for the Granny. In the past, Ford products have been called cheap and nasty—especially the old Zephyrs and Zodiacs, which had lots of style but lacked real quality. Ford has tried hard to change all that, and the current Granada range is pitched at the market of Rover, the smaller-engined XJ6, BMW and smaller Mercedes models.

Are its good looks deceiving? That's what the AA's laboratory staff want to know. It's their job to check how well finished the car is, and to estimate how long it is likely to last.

The Granada doesn't fare too well in the underbody-



protection league, with convenient lodging-places for mud and sketchy corrosion proofing where it matters. Nor are the AA engineers content with a cursory look. Knowing that it's in the hidden cavities that corrosion problems are liable to take hold, they use an illuminated probe called an Endoscope, which uses fibre-optics techniques to give light and vision into channels and closed body sections.

Also in the lab are instruments to gauge paint thickness and to look beneath the showroom gloss. (Here, too, in future, the ECE15 fuel test will be conducted.) And it's this back-up expertise and hardware that give AA/DRIVE car tests the depth and authority that few other reports can match.

This is also 'statistics day', when the car is measured for interior space, legroom, headroom and boot capacity. (Steering measurements are taken at MIRA.) The car's safety features are also assessed—the Yes and No list shown in DRIVE's safety-check panel is completed.

Other members of the AA research-centre team check for DIY serviceability; nothing is taken on the advertising blurb's say-so.

DAY 6

Domestic exposure, Denayer calls it. Testers like to put each car through all the



Trials to find errors—Denayer uses his head to conduct the Granada's safety check. Verdict—it could do with a bit more padding at the top of the screen

various uses for which it was designed. Today, the big Ford helps out with a house move, swallowing a fridge and chests of drawers with ease. Denayer collects a sack of potatoes, and notes the benefit of a low sill for rear loading. Gill Denayer renews her love affair with Ford automatics—she learnt to drive on an automatic Cortina, so her comments are nostalgic as well as useful. And the Denayers' road-test dog and cat are taken for their statutory estate-car drive—it's their hairs that Denayer later

found hard to remove from the carpet and upholstery.

Testers also take a 50-mile ride in the rear seat to assess passenger comfort.

DAY 7

Meet the public. DRIVE has pioneered the Everyman Panel to add 'typical' buyers' comments to the professional road testers' findings. Company director, salesman, housewife, middle-aged family man, spanning youth to long experience of motor-ing, DRIVE's panel takes each group of three test cars over

prescribed routes and notes individual likes and dislikes. The amateurs are not aware of the AA road testers' impressions, and are free to comment as they wish. 'And some of them are getting very good at it,' notes Denayer. 'If we aren't careful, they'll become too professional!' To avoid just that, DRIVE will keep changing the personnel.

DAY 8

Back to meet its maker. In an average AA road-test period, a car will cover at least 1000 varied miles in the hands of several different drivers—all of whom expect something a little different of a car: when Denayer took his young daughter on the return trip to the manufacturer's depot, she was able to present Alf Belsen with a schoolgirl's list of faults.

Ford welcomes all such information. Alf Belsen, in particular, was very interested in the 14½% odometer inaccuracy discovered at the AA laboratory.

It's from this breadth of comment—professional, technical, lay—that DRIVE compiles its published reports. No one can tell you, the driver, what you expect from your car, or how it will meet your needs. But armed with DRIVE's authoritative comment and exhaustive data, you should at least be able to decide how to make your choice of car...

WHAT IT ALL MEANS

THE WAY WE ARE
A motor car is a complex piece of machinery, and DRIVE's methods of assessing it are equally complex. However, we do try to make our summaries as easy to read as possible, without being so brief as to be quite meaningless

HOW IT GOES

'I SUPPOSE no road test would be complete without assessing the car's top speed,' says Denayer, 'but it is of only academic value these days.' Much more important to ordinary users are the acceleration tables, measured in two ways to tell the complete story.

First, it's done by screeching away from standstill, revving the car all the way to the point where it pays to change up a gear rather than hang on, to obtain the quickest time. This takes some experimentation, though most cars accelerate most quickly through the gears changing up at about 500rpm past the speed where maximum power occurs. Once established, this change-up point is noted as that car's maximum in the gears, and two or three runs each way on MIRA's mile-long, twin horizontal straights soon establish the ACCELERATION THROUGH GEARS figures quoted.

However, a car that turns in a good set of times when 'given its head' may be a doleful performer if asked to trundle through traffic in top gear. So our TOP-GEAR ACCELERATION figure assesses how quickly you'll pass a slow-moving truck when presented with a sudden gap in traffic.

Getting the car away from rest in the acceleration tests is the only really brutal part of the whole MIRA test day: one VW model (no longer made) broke three



This way for the big show—acceleration times, standing start and so on, with one eye on all the clocks

transmissions before a 0-30 mph time could be established! The rest of the time, it's the testers' skill and experience that ensure that each car gives its best—and clutchless gear changes and handbook-prohibited over-revving are never used to improve times. After all, you wouldn't do it to your own car, would you?

Equally important, the weather must be right: wet

tracks and high winds play havoc with testing, and DRIVE's staffmen must be the most avid subscribers to telephone weather-news!

HOW IT STOPS

HOW A CAR stops is as important as how it goes, and AA/DRIVE looks for the maximum efficiency of the brakes to stop a car from 30mph in neutral. To stop the vehicle in 30ft from this speed is

'100% efficiency'; the test Granada achieved this.

Also important, however, is the pedal pressure needed to obtain this performance, measured in lb/effort. On our braking charts the green band shows the range of pedal pressures suited to most, normally fit people, culminating in the sort of pressure that they would probably use by reflex in an emergency.

Many drivers are initially



The other test team—the Taylor family and, inevitably, dog

Colin Curwood

impressed by fierce brakes at light pedal pressure, but this can be misleading: in a panic situation, a driver's natural instincts tell him to stamp hard on the brakes, and brakes that are too efficient at light pedal pressures will be more prone to lock up and skid under heavy braking. Useless in an emergency.

To avoid skidding, it's nice to meet a car that can maintain its best stop over a range of pedal pressures. This is represented in DRIVE's chart by a black line that rises to 100% within the green zone, then climbs vertically on the righthand side of the chart. Most brake charts don't look like this—most curl back after reaching maximum efficiency, showing that, at highest pedal pressures, brakes are again losing efficiency, usually because of skidding or pulling.

Handbrake efficiency is calculated on a similar basis: its percentage efficiency in slowing the car from 30mph in neutral, plus its ability to hold the vehicle stationary on set hill gradients. No handbrake should allow the car to move on a 1-in-3 slope.

Brake tests also check for 'fade'. Most friction materials used in brake linings and pads work best when dry and warm. Cold, they may not work as well; too hot, and their performance can drop alarmingly. Hard driving on twisty roads, demanding prolonged and frequent braking, soon heats up the linings.

The test Granada varied hardly at all in hard and prolonged braking. Some cars, however, need twice as much effort to achieve the same braking after heavy use.

Similar comparisons are used in the watersplash. 'Now check your brakes' read the signs after a flood or a ford. Ideally a car's brakes should be unaffected by a soaking, and modern brake technology can achieve this. However, the Granada brakes needed almost twice the pedal effort after drenching, and they didn't regain maximum efficiency until 12 stops had been carried out.

The hardware used to check brake performance is delightfully simple, reliable and effective. Pedal pressure is measured by a Mintex Pressometer—a sensor unit connected to the pedal, which gives a reading on a dial in lb/



Top: Room at the back? The inches are measured, but comfort is... well, a matter of 'sit in and see'. Braking performance (left) and fuel-metering (right) are, however, a matter of fine calibration

effort. Percentage efficiency is checked on a Manometer, like a thermometer, with alcohol in the glass tube that rises and falls with the g-force of deceleration.

HOW THIRSTY?

LAST ISSUE's supplement dealt with the methods used to compile DRIVE's fuel-consumption figures, and what they mean to you. It's worth repeating, though, that the ECE15 fuel test cycle is, the AA believes, a misleading guide to what the driver can expect from a car.

That's why AA/DRIVE continues to put cars through a varied programme of different uses—on the road, not on a test rig—more accurately to simulate the way in which different drivers and cars behave. If your car is used mainly for nipping to and from school and shops, an 'official' constant-speed figure taken at 56mph isn't going to tell you very much.

WILL IT FIT?

APART FROM wanting to know whether they will fit their garages, many buyers pay scant regard to the measurements of market rivals. But, because two cars occupy the same kerb space, it cannot be assumed that they offer the same amount of room inside. And this doesn't mean Capri-versus-Cortina differences, either. Front-wheel drive saloons such as the Ford Fiesta offer more rear legroom than many conventional family cars more than 2ft longer.

DRIVE's method of assessing interior measurements follows an exact formula. Typical rear legroom and kneeroom figures, for example, are devised by setting the front seats to give 39in of driver legroom and 41in for the passenger—what is left behind is averaged to give the single mean figure that is quoted.

Our illustrations tell all.

IS IT WORTH THE MONEY?

CHECK DRIVE's on-the-road price comparisons for a purchase-price guide: some makers charge for seatbelts and delivery, others don't. Check the exact specification, too: many cars supplied for test are fitted with manufacturers' options.

One of Peter Denayer's first questions to people who ask him which car he recommends is: 'How long are you planning to keep it?' It's a key question that is reflected in the three cost figures in DRIVE's road tests—loss of value, running costs, depreciation. Each figure is important and represents a complex equation based on known service patterns, spares costs, typical depreciation (based on the AA's long experience of members' cars), and the general financial climate.

Loss of value is the simplest figure. It is the difference between the new cost of the car 2½ years ago, and its typical trade-in value now.

Depreciation takes into account the loss of value described above but adds to it the extra cost of replacing the vehicle with the same thing today. It also allows for the loss of interest the original capital would have earned if invested in a building society, instead of being tied up in a car.

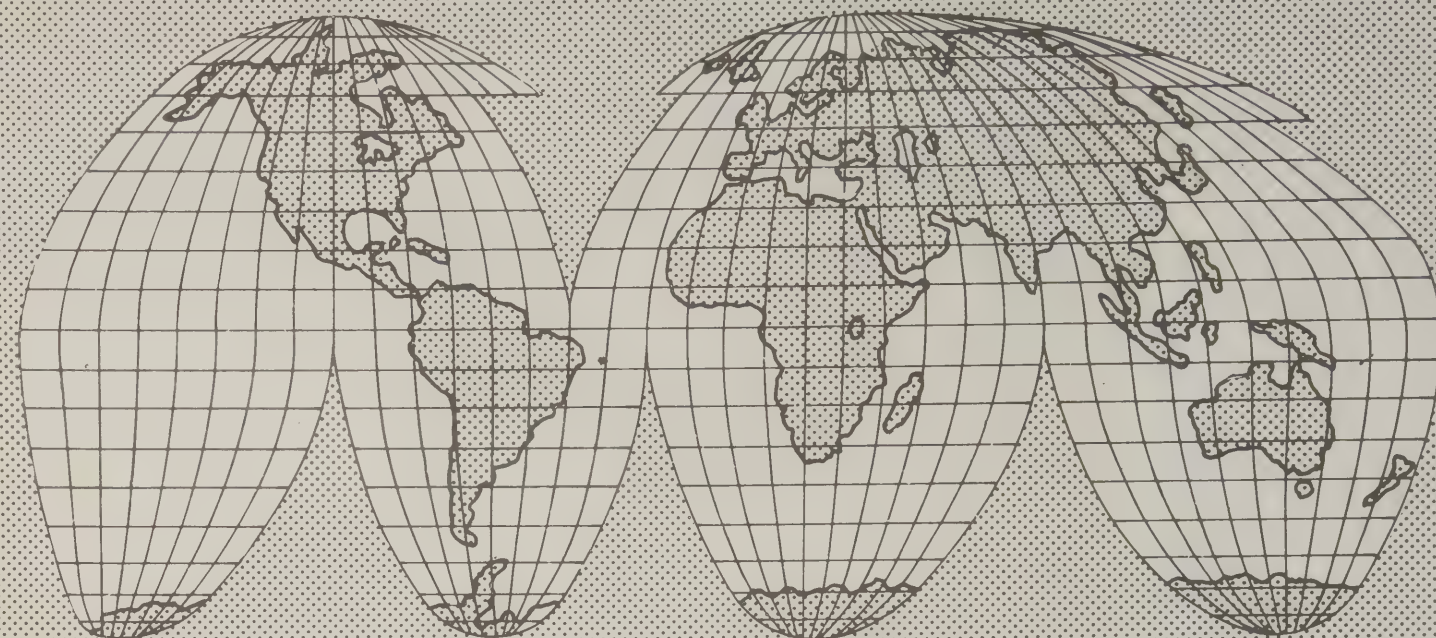
Running costs look at the ownership pattern for a particular car: fuel, insurance costs, spares prices, scheduled servicing and other likely expenses, plus a computed figure to cover typical, incidental, non-scheduled repairs. They reflect the difference in spares prices between rival makes and the frequency with which those spares will be needed.

It may be true that a foreign car needs, say, a more expensive set of points than a British car, but DRIVE allows for how often that more expensive set may be needed over the same period. Labour charges also vary, and are calculated into running costs.

Each figure is important to the potential purchaser. Together, DRIVE believes they reflect the most accurate guide to ownership costs.

MIKE HILL

WE'VE GOT IT COVERED.



Whatever kind of holiday you're planning, you'll find that the AA can fit your needs exactly.

Not only can we organise your travel arrangements to just about anywhere in the world, but we can also arrange your accommodation too.

In fact, all you'll need to do is simply relax and enjoy your holiday.

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An essential service for anyone motoring abroad, offering a three way protection plan covering vehicle, touring and personal security including comprehensive cover, immediate credit facilities, emergency service centre in France.

The service also offers discount petrol coupons, Bail Bonds and camping carnets.

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Through its wholly owned subsidiary, Argosy, the AA offers a range of competitive priced motoring holidays to France, Spain, Italy and Yugoslavia featuring luxury villas, modern apartments and deluxe ready-erected tents.

The AA also arranges air-inclusive holidays to Canada, USA, Barbados, Bahamas, Kenya, the Far East and South Africa.

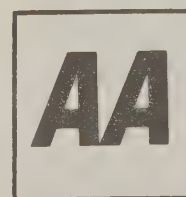
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You'll find 41 offices throughout the United Kingdom offering a comprehensive Travel Agency Service.

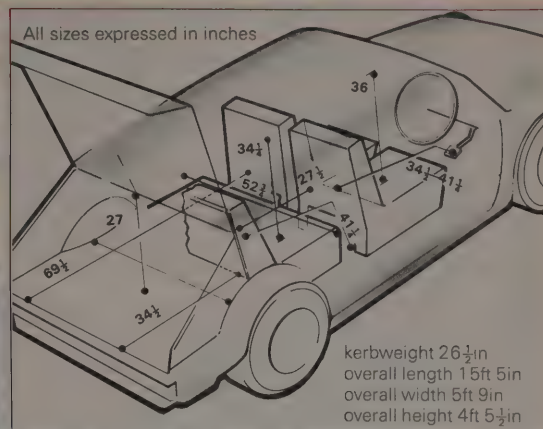
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For more information on the range of AA Travel Services ring 021-550 7648 or contact your nearest AA office.



THE POWER TO ORGANISE GREAT HOLIDAYS BY LAND, SEA AND AIR.



British-style on two stalks that operate the two-speed-plus-intermittent wipers, washers (the rear screen keeps itself clean and doesn't need a wash/wipe), twin-tone horn, headlamp flash and dip, and the direction indicators with lane-change setting. The main light switch, hidden below the righthand stalk, takes some finding.

Seats prove to be as comfortable as they look, and four adults are well catered for, even if the fifth would have the transmission hump. Headroom is no problem, but the car is noticeably more claustrophobic than the Audi or the Granada.

Where the Rover really scores is that it manages to combine a trendy shape with the practicality of a fifth door and fold-down rear seat. As a four-seater, luggage is hidden from view by a parcels shelf; with the seat folded, there's a 6½-ft-long platform. The rear sill, however, is so high that, if you do manage to get a heavy object into the boot, the only way out may be through a rear door...

There is no doubt that the Rover is the noisiest car of this group—the engine just *isn't* as refined as Rover publicists would have us believe. At a steady 70mph, the car is quiet enough to satisfy most drivers, but hard revving will drown other sources of noise.

Heating and ventilation are excellent, and the driver's climate is especially well controlled: Leyland has solved the problem of cooling his face without chilling his hands, and feet are warmed without being cooked. The heater's slide controls are simple to understand, and respond quickly to demands. Cleverly, the system also blows hot air to the front side windows via the insides of the doors, which, says BL, should have the fringe benefit of keeping rust at bay.

There are times when our testers wonder if they are being too strict with safety checks; then along comes a Rover to show that manufacturers can match our demands if they want to. On the 2600, we have reservations about the door-

mounted ashtrays (projecting when open); otherwise, it's as near perfection as we've met, right down to the superior Ten-Twenty laminated safety-glass—so far marketed only on Rovers.

There are no protrusions under the one-piece headlining, windscreen pillars are well padded (and, unlike the Audi, no hindrance to good visibility); and the fascia is nicely rounded. Even the ignition key has a rubber top.

Front inertia-reel belts have their clasps mounted on the seats, so the webbing is always in the correct position; the aerodynamic front end is designed to sweep luckless pedestrians aside rather than splatter them over a front grille; the body has computer-developed energy-absorbing structures at front and rear, anti-burst locks and waist-level compression struts inside the doors; the fuel tank is well ahead of the back axle, out of harm's way; and the bonnet is front-hinged for safety.

Living together

BL Cars can claim that its factory at Solihull, where the Rovers are made, is as modern as any in Europe. New facilities include the latest thermoplastic painting techniques. A thick coat of sealant protects the underside of the 2600, and the bumpers are made of stainless steel.

The shape of the car leads to chipping at the front end, though, and box-sections and the seams under the front wings could be better protected; but overall it's a job well done. The test car's paint finish was disappointing and outshone by the Audi.

DIY-types might well feel tempted to tackle something as straightforward as a Rover 2600. With no complexities such as fuel injection, routine jobs are certainly within scope, and service components are easy to get at. Rust-harbours brightwork is conspicuous by its absence, but, with no flaps fitted, mud can be thrown waist-high on to the body.

Box-pleated velour seats are no place for animals but, if you must, the trim will collect hair and

stains. Thick carpets cannot be removed for cleaning.

Most car accidents, of course, are not severe enough to bring a Rover's real life-saving technology into play, but the insurance companies' repair centre at Thatcham, Berkshire, has worked hard to ensure that panel repairs are straightforward and as cheap as possible. Nevertheless, an expensive performance car has got to represent a big insurance risk, and it is something of a pleasant surprise to find that the Rover range manages to escape the dearest group ratings.

The unkindest compliment we heard about the Rover 2600 was: 'Wouldn't it be marvellous if the Germans made it?' But certainly, an extra ounce of quality is needed, if the test car is typical. For instance, the nearside front window wound down and didn't want to come back up, and—only two drips, maybe—water did come in the windscreen surround.

But, after all's said and giggled the Rover is among the best of British. And that is *very* good.

Everyman Report

Perhaps the amateurs expected too much of the Rover 2600, and the discovery that it was not perfect in every way came as a shock...

Essex sales rep Glenn Shipton, 22, didn't like the sci-fi instrumentation binnacle, and the ride was 'too hard, but OK'.

James Winchester, the retired insurance salesman from Glasgow, described the rear visibility as impossible. 'Maybe I *am* short, but this car would be very difficult for me to park.'

Sussex company director David Everest, on the other hand, thought it was very noisy: 'If I were spending £6500 on a car, I wouldn't expect to have to listen to that roar.'

Housewife Joan Phillips, from Basingstoke, Hampshire, thought the acceleration was 'laboured' at first, but after a couple of miles she changed her mind. 'I liked the positive steering, and the smooth ride.'

Audi 100GL5E auto

Price £6785 On the road £6895



NOTHING LIKE THE MIGHTY QUIN?

The cross that the Audi 100GL 5E must bear to the end of its days, it seems, is that it's 'just a poor man's Mercedes'. And, though the link is about as straight as a Devon lane, it does exist.

Ferdinand Piech, nephew of the legendary Dr Porsche, joined Audi a few years ago from Mercedes, where he had been responsible for the five-cylinder diesel engine, with ambitions to build the only modern-day, petrol-driven 'five'. Audi took some convincing; already on its prototype stocks were various straight-six, V6 and horizontally opposed four-cylinder engines.

One by one, each was rejected by Audi's bank manager or wrecked on its test track, and Piech's arguments became overwhelming: the 'five' could be developed from an existing Audi engine, would be only slightly larger and heavier than a four-cylinder and could use the existing Audi gearbox. It had to happen, and Audi charges £400 for the extra cylinder, though it's the Bosch K-Jetronic fuel injection that pushes the power output up by nearly a fifth on the conventional Audi 100.

How it goes

The 100GL 5E's extra cylinder bumps engine capacity up to a still-modest 2144cc, but its sporting tone is music to the ears, and a manful attempt has been made to sort out the difficulties of balancing a five-cylinder engine at high speeds. The publicity blurb states proudly that the new engine runs as smoothly as a six-cylinder, but gives mpg like a four.

Sadly, we cannot agree. It is less smooth than the Granada 2.8 in this group, and fuel consumption, too, is a disappointment. The Audi five measures up well against a six, but not a four—especially Audi's own.

Overall, in automatic guise, it achieves a very ordinary 22½mpg, measured on careful brim-to-brim

testing over 1000 miles (the AA's electronic consumption-measuring equipment cannot be used on fuel-injection cars); we managed 29mpg on the manual four.

Fuel injection in a big Audi ought to produce a traffic-lights flyer, and, interestingly, DRIVE's Everyman panel all felt sure that this car was the quickest of the group. The stopwatch proves them wrong: the Audi is in the middle—fractionally slower than the Granada to 60mph, a whisker quicker than the Rover 2600—but this with the smallest engine of the three. There's also a prize-winning 30–50mph burst at 4.4sec (automatics are always clever at overtaking, and the VW-made unit on the Audi is no exception).

With most automatic gearboxes, it's hard to get it both ways—changes are usually either quick or smooth. At first, the testers complained that the car was too keen to drop a cog; but they finished the course on Audi's side—part-throttle changes are very smooth, though drivers do have to contend with sharp, full-throttle kick-downs that deliver the goods with a bang.

Enthusiasts say that big, front-wheel-drive cars are inevitably not the happiest handlers, but Audi has worked wonders, thanks

in no small way to the car's excellent power steering that allows some road 'feel' to reach the driver. The 5E corners gradually wider as speed increases, and the steering is no muscle-building exercise. The feeling that the tail might come out under pressure never becomes a reality.

Given a Cortina with the Audi's ride level, DRIVE's testers would be over the moon—but, for twice that price, more is expected. It ought to be smoother and more level to appeal to executives with money to burn. On poorly surfaced roads, the ride is a curious mixture of knobbliness and floating—bad bumps can jar the driver; on the motorway, the car suffers a gentle side-to-side rocking. We suspect that Audi is still experimenting with spring and damper settings. Happily, none of this interferes with the delightful handling.

Audi leads the way in super-safe braking development, and the 100GL 5E has the negative-offset front geometry common to the whole Volkswagen/Audi family: in the event of a circuit failure, patchy black-ice or a tyre blow-out, the car will still pull up in a straight line.

Inside story

The plush interior, with seats and doors trimmed in smart crushed velour, provoked a mixed reaction: of the two drivers who spent long periods at the Audi's wheel, one voted it ultra-comfortable, and the other climbed out protesting loudly about his aching back. Protrusive lumbar supports aren't to everyone's taste.

That said, the seats do offer an excellent range of adjustment, with everything falling comfortably to hand. From the carpets to the fascia, it oozes quality.

Of the three cars, only the Audi offers an instrument panel where nothing is hidden from the driver's view—and it's all there: three big dials for the tachometer with temperature gauge, speedometer with trip meter, and an accurate quartz clock with a fickle

fuel gauge. Panel illumination is controlled by a rheostat, but reflections are never annoying. Underneath goes a bank of 12 warning lights—four of them blank—and there's a voltmeter and oil-temperature gauge on the centre console.

In Continental style, the Audi has indicators on the left of the steering column, coupled to the dip-switch, set beside a shorter stalk that operates the lights. On the right goes the hazard-flasher and the wash/wipe switches. The heated rear screen, foglamps and fog-guard lamps are controlled by hard-to-find rocker switches.

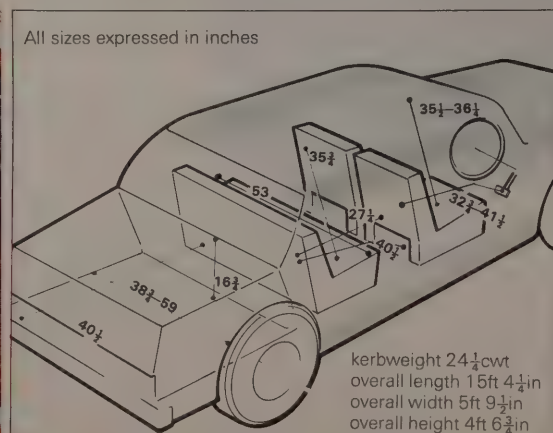
Good all-round visibility is marred by obtrusive windscreen pillars that seem unnecessarily thick.

Noise is a problem that afflicts lesser marques; in the Audi, it is limited to a general background activity—nothing to upset enjoyment of the optional stereo.

As one might expect of a car that is 15ft 4½in long, there is no compromise over luggage space, and the fully carpeted boot is well-shaped and deep. The high sill, though, means a big lift for heavy items. As a four-seater, the Audi is roomier than the Rover, but doesn't compete with the Granada. There is a deep rear shelf, a lockable glovebox and plenty of room for oddments.

Audi claims that its ventilation system changes the air in the car every 15sec, even when it is standing still, and a thermostat is supposed to keep temperature constant throughout the passenger compartment. Certainly, there cannot be many cars with so many air ducts—there's even one under the wheel for the man in the hot seat! The heater has prodigious output, but, though it is quick to react to driver demands, refuses to give warm feet and a cool face. Things can get very stuffy.

If it ever does come to the crunch, it would be reassuring to be wrapped in an Audi: the German company pioneered front and rear 'crumple zones' to resist an impact of 40mph—considerably higher than demands in the



cautious US, for example. Interior padding looks good, too, but a careful search reveals shortcomings in the roof padding—behind the visors, for example.

Seatbelts are a buckleless, inertia-reel type with clasps fastened to the seats, so they are always well adjusted and comfortable. A laminated windscreen is standard, as is the energy-absorbing steering column, head restraints, hazard flashers and crashproof doors and fuel tank.

Living together

In the past, DRIVE has had little criticism of Audi's rust prevention programme, with underbody sealant applied lard-fashion, and mudtraps under the front wings

Everyman Report

No one, but no one, was going to knock the Audi 100GL 5E.

Shipton was impressed by the acceleration, steering and road-holding, 'but I did find that I had to push the brake pedal down a long way before anything happened. However, the car was comfortable in both the back and front.'

Winchester didn't like the plastic cover on the steering wheel—sticky to hold—or the long-travel brakes. But that said, he was sold.

Everest summed up for all: 'Truly superb. Please, may I have one?'

Joan Phillips agreed. 'The road-holding and the acceleration were beautiful, there was only slight noise at speed, and it was so nice to drive—safe and stable.'

well blanked off. On the 100GL 5E, though, it appears that Audi has been cutting corners: the central exhaust hump, for example, has the protection of only primer—naughty; and where is the wax spray that used to protect areas missed by the sealant? No question, however, that Audi paintwork is still visibly superior to British opposition.

DRIVE can't see home mechanics doing much more than lift the Audi's bonnet to impress passers-by (and even here, they're assisted by a gas-filled strut). Best to leave engineering like this to experts.

The inside of the 100GL 5E looks no place for a dog or grubby children, but the major problem in cleaning the Audi is simply that there is a lot of car to clean.

The bad news comes when the bills roll in: allowing for depreciation, it costs £5 a day to own an Audi—before you turn a wheel.

The five-cylinder engine, promising smoothness, power and economy, looked like the answer to a harassed executive's prayers, and, whatever the testers think, the car is already an enormous success. The customer has voted, and the customer's always right. At this end of the market, any complaints will always seem like niggles; but at the price, it's not too much to expect a better ride (perhaps a difficult problem) and better driver visibility (easier).

The promises aren't entirely kept, but the nice thing about the Audi is that it goes as well as it looks. And *doesn't* it look good?

pieces of rationalisation in the new Deutsche Granny took place in the engine, with the British 3litre yielding to a lighter 2.8 and a 2.3litre option. DRIVE's 2.8 estate with automatic transmission came in twin-choke carburettor form, which results in power loss of only 5bhp on its 3litre predecessor, but with torque (important for lusty low-speed pulling) 15lb/ft down.

With its automatic choke, our test Granada GL estate was always easy to start, and the warm-up period was completely free from temperament. Acceleration from rest is similar to that of the 3litre tested six years ago, but the new car's shorter legs show up in overtaking times—the 5.5sec from 30–50mph is the slowest of this group. In fact, this is more a gearbox than an engine shortcoming, for the auto transmission refuses to drop into low gear above 20mph without use of the manual over-ride. Result: inferior acceleration but with fewer tiresome histrionics.

Fuel thirst is not terribly responsive to careful driving, and the big Ford uses a lot of juice in the warm-up period whatever the driver does. Mpg looks best on longer, main-road journeys.

What the Ford V6 lacks in petrol parsimony and get-up-and-go, it makes up for in manners: without doubt, it is quieter and more even-running than its predecessor or the five-cylinder Audi in this trio. It pulls well all the way to 5400 rpm, the point at which the automatic changes up in full song. This level also gives the best acceleration; there is nothing to be gained by revving to 6000.

The automatic box suits the engine's placid nature, with a willingness to slip down into second in response to just a modest touch on the accelerator at speeds up to 35mph. It doesn't, however, respond so well to harder, faster driving, with jerky kick-down changes at higher revs. The selector moves smoothly, but there's free action between D and N only—elsewhere an awkward button on the side of the T-handle must be pushed in.

Steering has sensible weight and little 'free play', swooping the car effortlessly round any corner at steady speeds; but there's no genuine road 'feel', and poor surfaces upset dignity to a disappointing degree, causing the car to jog and wriggle—a sense of uncertainty that is transmitted to the driver.

On standard 185-section radial-ply tyres, road-holding limits of the test estate were only modest, with some signs of tail-happiness if the car was pushed too hard. A saving grace is that, at such times, the driver can regain his and the

car's composure merely by backing off the accelerator.

Ford's wind-cheating techniques give train-like steadiness on windy main roads, better even than that of the front-drive Audi. And, as in all the good sixes of old, unpleasant booms and resonant drones just don't figure in the Granada's way of doing things. Apart from some wind-buffeting around windows and irritating body creaks over bumps, it is a very discreet operator.

Although the estate car's ride improved with a good load aboard, driving light didn't confer the unruffled ease that *can* be enjoyed at this level of the market. Over really pronounced potholes, the ride becomes quite jarring, and there's even restlessness on the motorway at times. We wonder how long it will be before the S-version's variable-rate springs and special tyres are used to improve the ride and handling in the rest of the Granada line-up.

The brakes feel fine under normal conditions, a 'good pedal', as the car buffs say—smooth and silent, with a commendable resistance to fade in arduous use. Yet the servo-assistance is rather too enthusiastic; indeed, our testers preferred the increased pedal loads that followed a dousing in the water-splash. As things are, skid-free crash stops demand undue delicacy of effort.

Another disconcerting Granada brake feature is 'pad knock-off'—pedal travel that is much longer, though not heavier, after a spell of enthusiastic bend swinging.

Inside story

The Granada estate differs from the 'new-fangled' five-door saloons, in that it offers proper load space at the expense of a curvacious line. Inside, the carpet and the plastic-lined sides offset any sense of austerity, though some test-car creaks did tend to spoil things a bit.

The back seat is a flat bench with room for three, lacking the centre armrest or shaping that would make two feel cosseted. All right, the cushion is flat to accept the tilting squab cheek to cheek when the mammoth, 6½ft load length is needed, but its lack of contouring causes rear passengers to slouch forward.

The front seats are a bigger disappointment—very unimaginatively shaped and lacking spinal support for long-journey comfort. The driving position takes some time to come to terms with: a non-adjustable steering wheel feels too close at first, and masks some minor gauges and switches. The comprehensive instrument display is also spoiled by poor calibration of the small dials, and some controls—fresh-air vents, instrument

Ford Granada 2.8GL estate auto

Price £6960 On the road £7074



ESTATE IN THE GRAND TRADITION

By European standards, the Granada is a big car. Not for Ford the dubious pride in cramming the flagship of its fleet with luxury and then trying to sell it for its compactness and economy. No, the Granada went its own way, following a tradition established by the 1950s Humbers, Vauxhall Crestas and Ford's own Zephyr-

Zodiacs of the You've-never-had-it-so-good Britain.

Now, however, the British Ford is a 'domestic import', brought in from Germany, the accent has changed, becoming more svelte. Does the Granada still cast a spell?

How it goes

Not surprisingly, one of the first

rheostat, intermittent-wipe timer, for example—seem too light for precise adjustment.

On the bright side, deep windows, piercing halogen headlamps and a remote-control door mirror add vision appeal for the driver. He can also see the sky through an

Everyman Report

Even loaded to the brim with optional extras, the cavernous Ford Granada 2.8GL was voted into last place by three of DRIVE's Everymen.

Shipton complained about the 'soft and bouncy' ride, and the plasticky interior finish. He gave the roadholding, too, an 'only fair' comment on his score-sheet. On the credit side, 'the car was quiet and lacked vibration'.

Winchester was less critical, finding both ride and handling to his taste. And who could fault luggage space like this? 'I also liked the electric windows, and the headlamp flashers...'

Everest liked the great feeling of space, and thought the Granada looked a better buy than the Rover. 'But the inside is cheap—somehow the Japanese are the only ones with the knack of making plastic look expensive.'

Joan Phillips dismissed it as 'a typical Ford', adding: 'I thought it was like a big Cortina, and that's an insult. I didn't feel it really sat down on the road—made me feel a bit insecure.'

excellent, draught-free sunroof—standard on GLs.

Standard, too, is the rear wash-wipe on the estate's tailgate, and the test car also had optional headlamp washers—an excellent solution to grime problems at the other end—operating on the screenwash switch when the car's lights are on. (This option, incidentally, adds some 3½in to the Granada's overall length.)

Heating at the back is barely adequate—the Granada no longer has an independent, ducted supply to the rear floor—but it serves front occupants well. The booster fan is inaudible on its

slowest of three speeds, and, except at maximum heat setting, there's a breeze from the centre fresh-air grilles that prevents stuffiness. Hardier types can even open the sunroof in chilly weather and stoke the heater at floor level.

Injury prevention seems well-thought-out, with a protruding fascia shaped to prevent people colliding with the laminated glass windscreen; but there could be more padding round the top of the screen. The front belts are comfortable to wear, although reels get in the way of rear passengers—could Ford not tuck them out of view in the centre door pillar on this new model? Rear belts can be fitted, but our users disliked the bars required on the windows.

Front passengers complained of screen reflections caused by oddments on the fascia-top shelf; use of the small locker beneath and the box between the seats is the best cure for this. There are combined pull-armrests on the doors, but those at the rear are too uncomfortable for passengers' easy use in enthusiastic cornering.

Every door has a courtesy-light switch, and the complete absence of a rear load sill is a real asset for serious cargo-carriers.

Living together

First the good news from under the Granny's bonnet: everything is laid out in an accessible fashion to ease maintenance chores, and there have been several developments to lessen those demands—no hub-bearing adjustment, contactless electronic ignition and tougher valve components have extended major servicing intervals to 12,000 miles; brake and electrical components, too, have been laid out for simple checking. The bad news? Spares are quite costly.

General rust prevention still falls far short of expectations of a quality car. Most of the serious underbody protection—beyond paint and primer—is concentrated under the wheelarches, and there are misses even in this modest aim, plus some nasty mud-

harbouring cavities under the front wings. Elsewhere, there's little to ward off the rust bug.

Ford points to a special peck-proof primer used on sills and front stoneguard, but this doesn't prevent the top coat being chipped off. A pvc, flexible-paint finish would be better.

The Granada never looks so large as when you have to clean it, a task that is aggravated by its tendency to gather grime on its flanks below the bold rubbing strip. The interior trim, too, has wondrous magnetic qualities: hairs and fibres cling tenaciously to the seats and carpet.

Like the Rover 3500, the Granada has fared well in the large-car Depreciation League tables, but the fact remains that they all lose value at more than twice the rate of modest family saloons. Likewise, running costs are half as much again as on, say, an Escort 1300.

Forecourt topping-up and oil and water checks are easy, except for the absence of a radiator overflow catchpot. The fuel filler will take 12gallons once you have learned to delay your reaction to the alarmist fuel gauge; no low-level lamp is provided.

Despite its recent introduction, this Granada remains a 'traditional' large estate car. Its new V6 pulls lustily and always discreetly; its gearbox, steering and suspension all encourage the easy life; and its load space seems ready for anything—so long as it's not too dirty or smelly.

The fact that it has a well-developed thirst and a dislike of being hustled may well be of secondary importance to the man who has always liked 'a big motor'. What may upset him more is that the seating and the ride ought to be more luxurious.

Ford's publicity flavour-of-the-day is 'emphasis on engineering', and it's more than just a phrase in this case. More's the pity, therefore, that this Granny hasn't got the bodywork to keep her glamorous in her old age.

ROVER 2600 auto

Front engine: 2597cc/6cyl, OHC (belt); two SU carbs; 136bhp at 5000rpm
Rear drive: 3 ratios, 23.1mph/1000rpm
Suspension: front—ind MacPherson struts, anti-roll bar; rear—coil spring live axle, torque tube and Watts linkage
Steering: power-assisted rack and pinion, 2½ turns/33½ft circle; 5½J wheels, 175HR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
automatic gearbox £651.24 (fitting 2.7hr)
exhaust £63.72 (0.85hr)
headlamp unit (with bulb) £40.24 (0.5hr)
front bumper £35.37 (0.5hr)
laminated windscreen £73.44 (3.6hr)
oil filter and points £3.70 (0.8hr)
major service 12,000 miles (3.85hr)

	per year	per mile
Running costs	£784	6.53p
Loss of value	£452	3.77p
Total depreciation	£1701	14.18p
Insurance group	6	

AUDI 100GL 5E auto

Front engine: 2144cc/5cyl, OHC (belt); Bosch pi; 136bhp at 5700rpm
Front drive: 3 ratios, 18.9mph/1000rpm
Suspension: front—ind damper/struts, coil springs, anti-roll bar; rear—torsion beam dead axle, trailing arms, coil springs, Panhard rod
Steering: power-assisted rack & pinion, 3½ turns/34½ft circle; 5½J wheels, 185/70HR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
automatic gearbox £639.48 (fitting 4.2hr)
exhaust £77.95 (1.1hr)
headlamp unit (no bulb) £50.77 (0.5hr)
front bumper £48.30 (0.6hr)
laminated windscreen £101.95 (3.3hr)
major service 10,000 miles (2.4hr)

	per year	per mile
Running costs	£841.48	7.01p
Loss of value	£385	3.21p
Total depreciation	£1826	15.22p
Insurance group	7	

FORD GRANADA 2.8GL ESTATE auto

Front engine: 2792cc/V6, OHV (chain); one twin-venturi-barrel Solex carb; 133bhp at 5200rpm
Rear drive: 3 ratios, 21.3mph/1000rpm
Suspension: front—ind wishbones, coil springs, anti-roll bar; rear—ind semi-trailing arms, coil springs
Steering: power-assisted rack and pinion, 3½ turns/35ft circle; 5½J wheels, 185SR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
automatic gearbox £273 (fitting 3.0hr)
exhaust £91.40 (1.0hr)
headlamp unit (no bulb) £21.75 (0.5hr)
front bumper £21.55 (0.4hr)
oil filter £3.67 (0.2hr)
major service 12,000 miles (2.6hr)

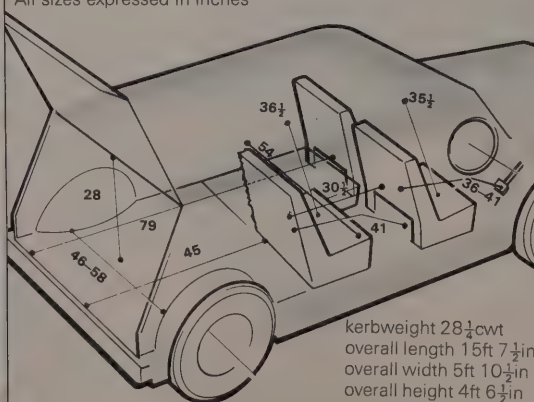
	per year	per mile
Running costs	£825	6.87p
Loss of value	£498	4.15p
Total depreciation	£1699	14.16p
Insurance group	6	

THE RIVALS CLOCK IN

Rover 3500 auto
Jaguar XJ 3.4
Opel Commodore GS auto
Peugeot 604SL
Renault 30TS

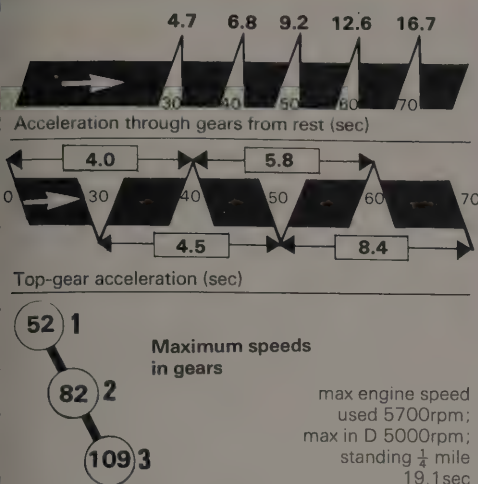


All sizes expressed in inches

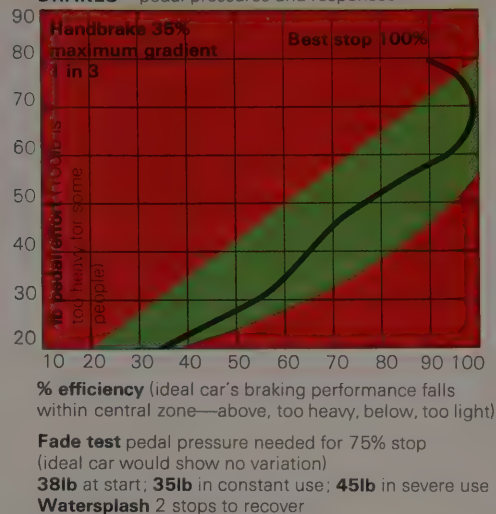


kerbweight 28¼cwt
overall length 15ft 7½in
overall width 5ft 10½in
overall height 4ft 6½in

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane min overall consumption 24 $\frac{1}{2}$ mpg effective tank range 325 miles/13 $\frac{1}{2}$ gal

Normal range of consumption

short journey, suburban	18 $\frac{1}{2}$ mpg
hard driving, heavy traffic	22mpg
mixed roads—brisk, 50mph cruising	24 $\frac{1}{2}$ mpg
motorway—70mph cruising	26 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	27 $\frac{1}{2}$ mpg

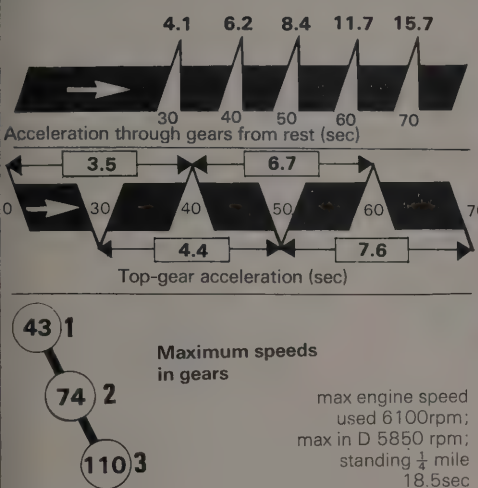
Consumption at steady speeds

30mph	37 $\frac{1}{2}$ mpg
56mph	32 $\frac{1}{2}$ mpg
70mph	26 $\frac{1}{2}$ mpg
max mph	15mpg

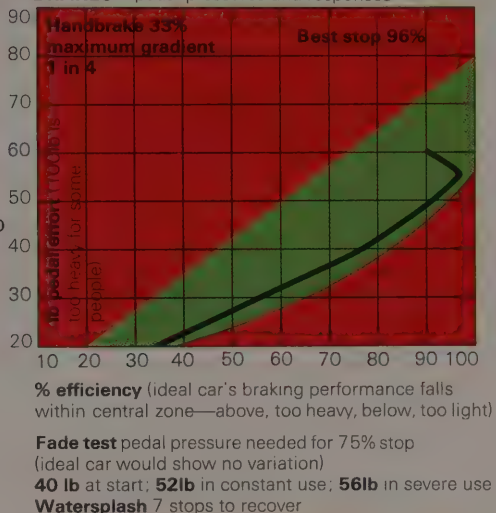
SAFETY CHECKS = O factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	O	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/98 octane min overall consumption 22 $\frac{3}{4}$ mpg effective tank range 275 miles/12gal

Normal range of consumption

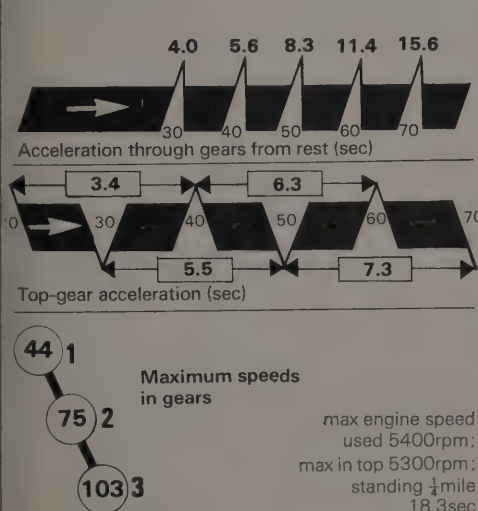
hard driving, heavy traffic	18 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	23 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	28mpg

For technical reasons, the DRIVE/AA electronic fuel-metering device cannot at present be used on engines fed by fuel-injection systems. Accordingly, no accurate figures can be supplied for 'short-journey, suburban' or 'motorway—70mph cruising' conditions, or for steady-speed consumptions

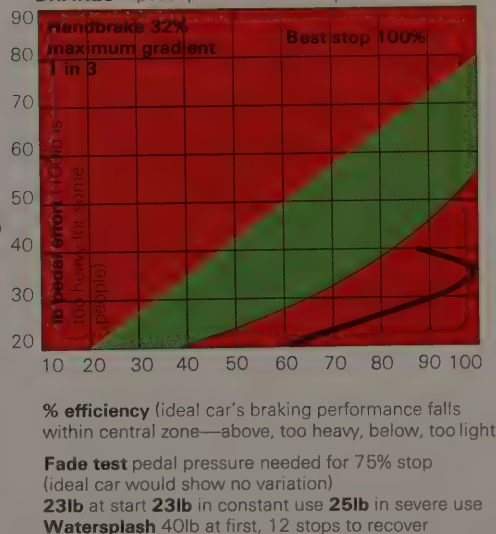
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load-sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane min overall consumption 21mpg effective tank range 250miles/12gal

Normal range of consumption

short journey, suburban	16 $\frac{3}{4}$ mpg
hard driving, heavy traffic	17 $\frac{3}{4}$ mpg
mixed roads—brisk, 50mph cruising	21 $\frac{3}{4}$ mpg
motorway—70mph cruising	22 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	23 $\frac{1}{2}$ mpg

Consumption at steady speeds

30mph	31 $\frac{1}{2}$ mpg
56mph	26 $\frac{1}{2}$ mpg
70mph	22 $\frac{1}{2}$ mpg
max mph	15mpg

SAFETY CHECKS O = factory-filled option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	Yes
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	No	childproof?	Yes
rear belts: fitted?	O	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH BEST (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
7378	3528	22 $\frac{3}{4}$	117	9.2	4.5	100/70	15' 5"	41	40 $\frac{3}{4}$	2 $\frac{1}{2}$ /33 $\frac{1}{2}$
9230	3442	18 $\frac{1}{2}$	117	11.1	4.3	100/65	16' 2"	43	44 $\frac{1}{2}$	3 $\frac{1}{2}$ /39 $\frac{1}{2}$
6625	2784	21	113	10.6	3.5	100/70	15' 1"	40 $\frac{3}{4}$	n.a.	4/34
6611	2664	23 $\frac{1}{4}$	112	11.6	4.5	92/45	15' 5 $\frac{1}{2}$ "	39 $\frac{1}{2}$	43	3 $\frac{1}{2}$ /35
6125	2664	23 $\frac{3}{4}$	113	10.3	3.9	98/50	14' 10"	42 $\frac{3}{4}$	40 $\frac{3}{4}$	3 $\frac{1}{2}$ /37 $\frac{1}{2}$

SPAIN
AGAIN



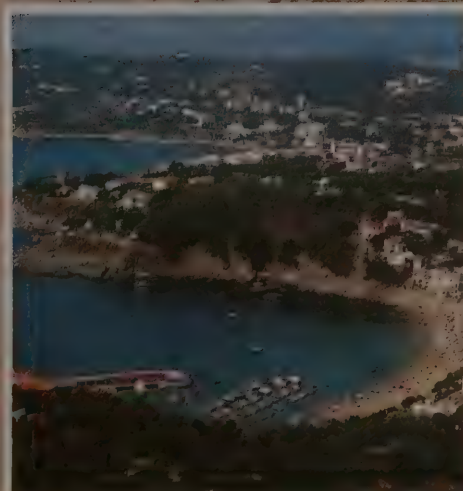
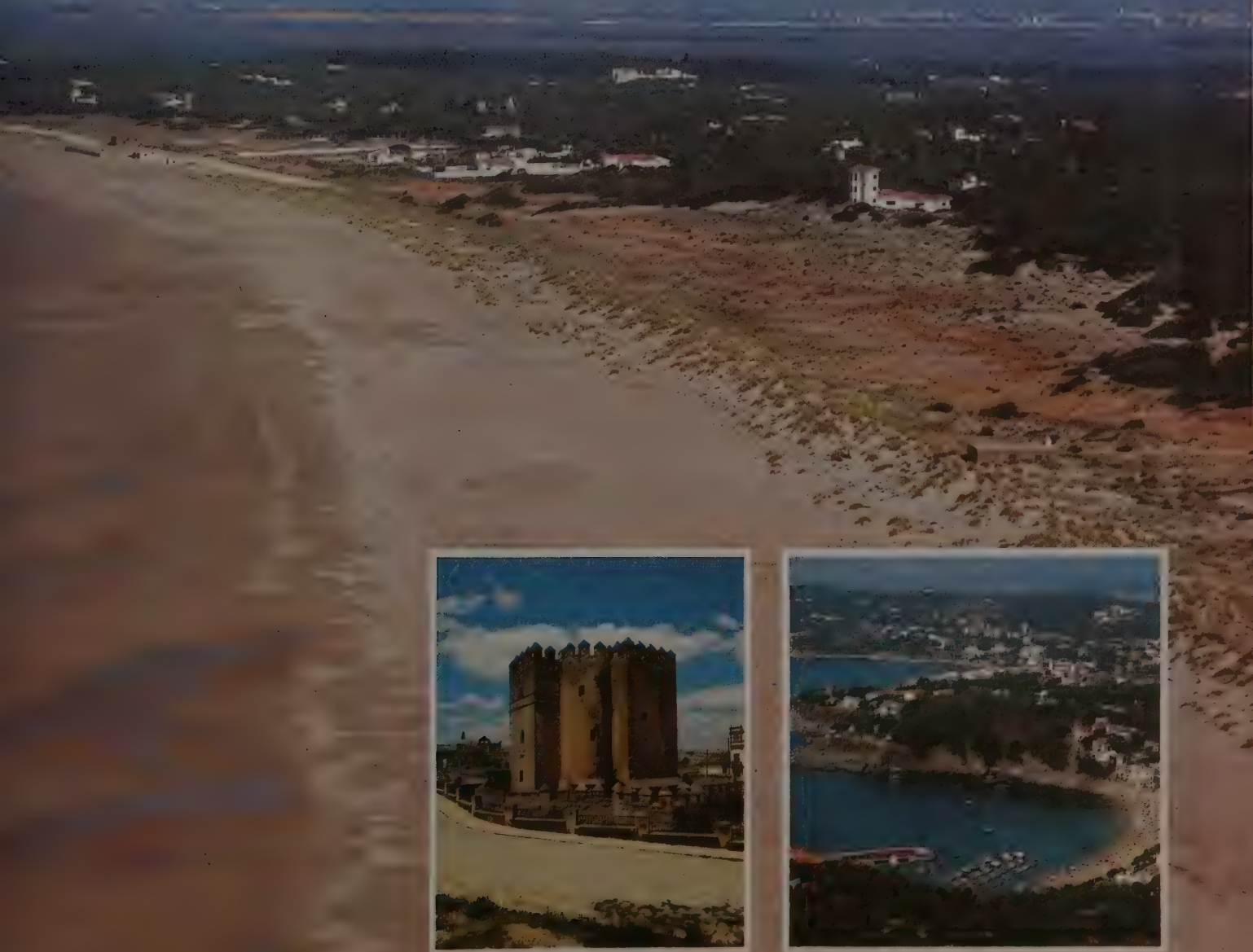
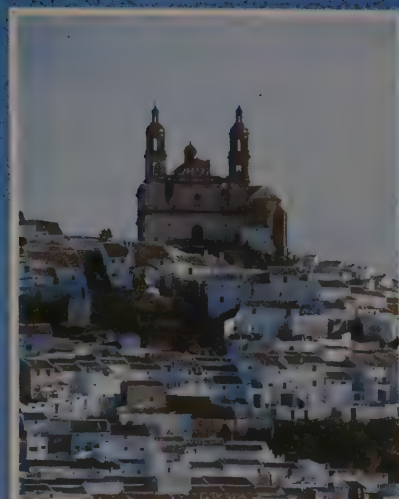
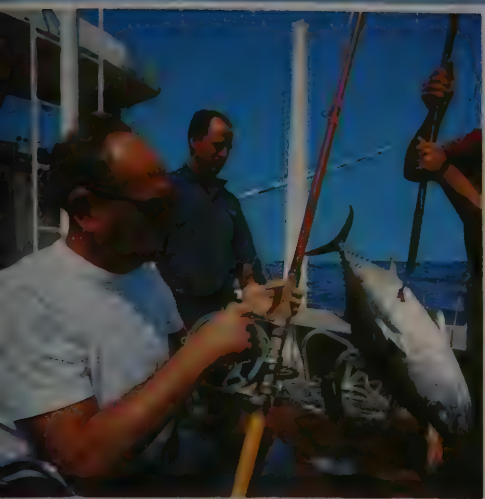
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West Midlands.

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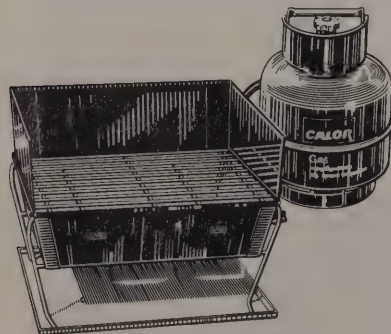
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D7/78

Clinic

Any problems? Whether they are technical, insurance or legal, DRIVE's experts can help. Write to: Clinic, AA, Fanum House, Basingstoke, Hampshire RG21 2EA

Take a letter ...

I am baffled by the various letters—CXL, GLS, HL, ti, and so on, that appear after the names of so many car models. Presumably they give some clue as to what one is buying, but they don't mean a thing to me.—H B SAUNDERS, HARROGATE

Some manufacturers we have spoken to don't really know how or why their mystifying alphabet came into being, they simply use the letters as codes. And, since there is no conformity between makers, confusion inevitably arises. Thus, one man's N is another man's L, and so on.

The oft-abused GT (Gran Turismo) is perhaps the best-known, and denotes (in theory) a sporty, higher performance version of a standard model. There are a few other abbreviations that still mean something: PI, FI, I or E = fuel injection (depending on the country of origin), D=diesel, TC=twin carburettors, A = automatic. Beyond these simple examples, however, the waters become rather deeper and murkier!

Raiser blades

I recently bought a 1968 Volvo 122S estate. I'm very happy with it, but for the rather small and light windscreen-wiper arms that lift off the screen in high or blustery winds. Is there a simple way to counter this?—MARGARET COMFORT, LONDON SW4

It's quite likely that, though the wiper blades may have been renewed several times in the car's 10-year life, no one has ever replaced the arm and spring assemblies, and tired springs simply won't provide enough clamping pressure to hold the blades on to the glass. Try replacing these, but, if it doesn't work, investigate the possibility of fitting later Volvo arms (the type equipped with an aerofoil section), or wire-framed blade assemblies designed to reduce windscreen-wiper wind-lift.

Chatterbox

The 1977 Peugeot 104SL that I bought in February has always suffered from a clatter from the gearbox when idling in neutral, and the only way to stop it is by depressing the clutch. The dealer says that this is 'transfer gear noise', and is harmless. Nevertheless, I find it annoying and

embarrassing; so much so that I feel ashamed to stop the car near anyone without declutching—which I know is bad practice. What say you about this?—H L WILKINSON, SHOREHAM-BY-SEA

Yes, we know about this one. In fact, we said in our 1976 AA road-test report on the 104 (RTR 406), 'Gear whine and idler-gear chatter at tickover are more reminiscent of the original Mini, and irritate some people more than others.' The racket afflicts many models with a transverse engine/transmission layout, but, as the dealer says, it is harmless. However, if you think yours is excessive, you could take a second opinion by having an AA inspection. If the clatter proves to be 'within standard', though, you'll find that you just have to grin (or cringe) and bear it.

Thirst things first

I own a 1969 Ford Cortina that last year was giving 36mpg on long runs, but, lately, consumption has dropped to 20mpg. Neither I nor my garage have been able to pinpoint the cause. Any suggestions?—D COSTELLO, DUBLIN

You don't actually say what checks you and the garage have made, but presumably they included checking the efficiency of the ignition system (which includes the timing) and the fuel pump. The carburettor air filter should also be examined and replaced if dirty, and the carburettor itself should be checked for jet wear and excessive spindle play—and, of course, the correct mixture setting. (It may be that an exchange carb is called for.) Also make sure that the choke is operating correctly.

Worn valves could be a factor, so a compression check—and, indeed, a full diagnostic engine check—are well worthwhile. It seems unlikely that leaks are the cause of such a considerable drop in mpg, but, just the same, give all joints, pipes and gaskets the once-over.

Spare a thought

Now that the Triumph 2000 and 2.5 have been dropped, I am concerned about obtaining spares for my 1971 2000 Mk2. What are Leyland's proposals?—A J BONNER, EXETER

BL Cars will say only that spares for the 2000/2.5 range will continue 'for a number of years yet'. Obviously, much depends on outside suppliers being able to supply parts at viable prices. When they are not, stocks will have to be run down. You need have no worries yet so far as mechanical parts are concerned, but it's worth noting that trim and interior fittings will undoubtedly be the first items eventually to become scarce.

Positive advice

I am puzzled by conflicting statements I've read regarding which lead to disconnect when charging a battery. The latest article I read said that the earth lead should be

disconnected in order to protect the alternator, but I have always taken off the positive lead. Have I been damaging my alternator?—**J TAYLOR, ROCHESTER**

No—if you had, you would have known about it immediately, because the diodes in the alternator would have 'blown' and the ignition warning light would have shone its 'no charge' message when you started the engine. In fact, on modern cars there is no need to take off either the positive- or the negative-earth lead when charging. But if your car has an early alternator, or you simply want to play safe, disconnect either lead—it doesn't matter which.

Foggy prospect

I'm considering fitting a pair of rear foglamps to my car, but I'm not sure of the legislation regarding their positioning. Please advise.—**D MANT, BROXBORNE**

Currently, there is no legislation, only guidelines from the Department of the Environment regarding the fitting of high-intensity red fog-guard lamps. But you would be well advised to comply with the draft proposals (which may be amended) which probably will be passed this

year for introduction in 1979. Here are the DoE's main requirements: Not more than two rear foglamps to be fitted; if only one is fitted, it must be on the offside; if two are fitted, they must be positioned to form a matched pair and be of the same colour and intensity; all fog-guard lamps must be not less than 250mm or more than 1m from the ground. Filaments must not be rated at more than 25w; the connections should be such that the lamps can be extinguished independently of any front fog- or headlamp and illuminated only when any fog- or headlamp is also illuminated. They must be at least 100mm from stoplamps; no fog-lamp shall be fitted so that it can be illuminated by application of the brakes. And an interior telltale, readily visible to the driver, must be fitted to indicate when the lamps are illuminated.

Cut it out

I've bought an MGB roadster. Can you recommend any particular type of anti-theft device for it? It has a steering lock, of course, and I have invested already in a brake-pedal-to-steering-wheel

Krooklok. Would it be a good idea to fit some sort of ignition or fuel cut-out, and/or an alarm system?—**M G THOMAS, TWICKENHAM**

It's an unhelpful, but true, cliché that nothing, really, is going to stop the determined car thief. And with soft-tops, it's made easier by the fact that entry is only a knife-slash through the hood. The Krooklok will deter joy-riders, but probably won't stop the professional or prevent the interior being 'done over'. Sirens can be set off by accidental nudges from pedestrians and boisterous children. Fuel cut-outs can be positively dangerous: they allow a thief to make his getaway on full float chambers and pipe lines... only to splutter out at a busy road junction or when overtaking, perhaps causing serious injury, or worse, to other innocent road users.

We favour the better ignition cut-out devices, which are too complicated to unscramble for the hit-man in a hurry.

Water fizz

Clinic (May-June) stated that you can't check your battery's polarity without a meter. You can, and

here's how: take short leads from both terminals and immerse the ends—close together, but not touching—in a cup of salted water. The wire which causes the most fizz is the negative. This test is also useful if you have a charger that does not have its leads clearly marked.—**F B SHARP, EASTBOURNE**

It's quite a rigmarole, but you're absolutely right. Of course, if the battery is flat, the test is useless...

What's new?

My seven-month-old car has a year's warranty, but if one of the components fails tomorrow (heaven forbid!), does this mean that the replacement part is guaranteed for only five months, or is it classed as 'new' and therefore covered for a further 12 months' use?—**MISS M REEVES, CARSHALTON**

As you don't say which car you own, we can't be too specific. Conditions of warranty vary considerably from make to make and contain a lot of 'ifs' and 'buts', so there is no general answer. Ford and BL Cars don't give a 'warranty-on-warranty', so a new water pump, or whatever, would be covered only for the

Music and movement

MOVE TO the music of your choice with this DRIVE cassette-pack offer: 12 pre-recorded stereo cassettes, in packs of four, PLUS a 16-cassette dispenser-case in black vinyl with an end-to-end hinged, lockable lid—the ideal way to keep your music collection tidy, dust-free and easily to hand in the car. You can order as many packs as you wish, and save 25% on their normal retail price—that's £1.35 on the price of each pack as offered in the AA's mail-order catalogue. DRIVE's price? Just £3.95 for each four-cassette pack, and £2.18 for the case (inc p&p). THE CLASSICAL selection includes excerpts from Beethoven's 'Pastoral' Symphony, Mozart's Violin Concerto in D Major, and other favourites. THE EASY LISTENING selection has songs in the Ray Conniff style, old

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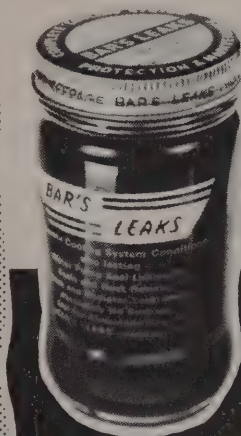
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THE SUNDAY TIMES

CLINIC

remainder of the car's original warranty period. Fiat, on the other hand, allows a three-month warranty on certain replacement parts under certain circumstances.

Trouble in store?

As a hedge against motoring inflation, I'm thinking of buying a new set of tyres now that I might not in fact need to use for, say, 12-18 months. Do you have any advice on storage?—PGCHARMAN, WALLINGTON

Well, we wouldn't actually go along with your idea: although the tyres you buy may be 'factory fresh' and keep for 18 months under the right conditions, you could be buying tyres that are already a couple of years old and beginning to age. (You can tell the age of a tyre by checking what is known as the 'American Recall Code' marked on its sidewall: a marking of 46-7, for example, means that the tyre was

manufactured in the 46th week of the year 1977.)

Having decided that the tyres are young enough for 'laying down', you then have to consider the atmospheric conditions: a cool, dark, dry place free from draughts and oil and petrol spillage.

Non-stop Fiesta

Following what Clinic said about Ford Fiesta engines running-on after the ignition is switched off, Ford tells us that this characteristic can also be caused by the electric fan continuing to spin after switch-off. (It acts like a generator, giving off enough current to cause a few seconds of smooth running-on.) Ford considers that this has no detrimental effect but it can be cured either by wiring the fan through a relay or by fitting a diode. Either method would be the owner's responsibility in consultation with a dealer.



INSURANCE

Hole truth

THE FOG was getting thicker as businessman Alfred Jennings drove to his North-country home. But he was doing nicely . . . until he took a wrong turning on to what seemed like a cart track.

Less than 50yd later, there was a sickening crash as a front wheel of his MGB dropped into a pothole, wrenching the steering wheel from Jennings' hands; immediately the car suspension started making expensive-sounding noises.

And the noises didn't just sound expensive: next day, his local garage estimated that the damage would set him back £80. Jennings' insurance company told him that it would pay, but only at the expense of his no-claim discount (more than £80), so the ball was back in his court.

'Rotten luck, but just one of those things,' sighed Jennings, until a lawyer friend told him: 'The local authority is legally bound to keep the roads in good repair. You ought to sue . . .'

He went on to explain that the Highway (Miscellaneous Provisions) Act 1961 places a statutory responsibility on the highway authority to maintain, and keep in repair, the public highway, and that local authorities carry insurance to cover such events as Jennings' accident. Their only defence is to seek to establish

that they have taken 'such care as is reasonable in all circumstances to ensure that . . . the highway . . . was not dangerous'.

The key word is 'reasonable'. And it is, in the end, up to the courts to decide just how regularly a road should be inspected, though it is probably reasonable to spend more time on main roads than on country lanes. Indeed, a highway authority recently won a pothole-damage case, claiming that the hole had been caused by recent frosts. And, a few years ago, a London borough successfully defended a claim after a car had struck a kerbstone in a grass bank on the side of a busy road: the borough said that the kerbstone had been there for 20 years without causing an accident, and the possibility of an accident was remote enough to be unforeseeable.

The judges in a Court of Appeal hearing also found that a highway authority was one-third to blame for an accident in which a car ran into a pool of rainwater following a downpour, causing the driver to swerve into a head-on crash with another car. It was held that the authority had failed to maintain the road-drainage system, but the court added that the mere existence of water on a road was not evidence of a local authority's failure to maintain.

AA motor insurance manager Mike Saunders says: 'I wouldn't recommend anyone to take on such a case himself. In the end, you come down to talking about what is "reasonable", and that can be a very complex legal wrangle. Claiming against a local authority is a difficult task, even for an expert.'

Alfred Jennings? He eventually established that the pothole had been there for three months. And he won his claim.

Now read all about 'The end of the road?'—page 18.

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HOTELS

Inns on the park

MRS CRABTREE was walking a little slower than usual as she headed for her Mini in the car park beneath the hotel where she and her Army-officer husband were staying: in her hands was an elegant and very expensive bone china figurine that she had just bought in the hotel's gift shop.

She wasn't quite sure where she had parked her car, and was lost in thought when the automatic doors of the car park lift opened in front of her nose. And, as she stepped forward after a moment's fateful hesitation, the doors clanged shut again—knocking the precious ornament out of her

fingers. It was shattered. And so was Mrs Crabtree, though she felt quite sure that the hotel would bear the cost of her loss. After all, she concluded, the doors of the car park lift had banged to unreasonably quickly.

But the hotel receptionist politely and firmly turned Mrs Crabtree's complaint aside, explaining: 'The car park is operated independently. The hotel just happens to be built on top of it.'

The man at the car park's ticket barrier was no more helpful, and a lot less polite. 'Didn't you read the notice, lady? No responsibility!' he snapped, waving her through and beckoning-on the car behind her. 'I shall write to National Car Parks!' Mrs Crabtree cried. 'You do that,' the grinning attendant shouted after her. 'We don't belong to them.'

It's a long time since the AA insisted on individual lock-up garages in the higher classifications of appointed hotels, even though there is still a limited demand, chiefly among owners of rare vintage cars and commercial reps with estate cars full of valuable goods and samples.

In major cities, the newer hotels often have car parks adjoining them. Older hotels frequently do not, and finding a place for one's car can sometimes be as difficult as obtaining a bedroom—and almost as costly. Some hotel door-

men will 'take care of' your car at a parking meter for almost unlimited periods (no doubt infringing the regulations), but they make it abundantly clear that you should take care of them in return. In contrast, there are hotels like Culloden House, near Inverness, where cars are parked on the hotel's gravel drive and guests come out in the morning to find their windscreens sparkling clean—a thoughtful free service.

Occasionally I come across a not-inconsiderable charge for parking in what appears to be a free car park belonging to the hotel in which I have stayed the night. But the cheekiest story I remember was related by an English tourist in Pisa, Italy.

He parked in a free car park close to the famous tower, and, before leaving, was approached by a man wearing a peaked cap and a white coat and sporting a book of pink tickets. The 'official' parted with one in exchange for the Englishman's 500-lira note. It was not until some time later that an Italian-speaking friend pointed out that the pink ticket was in fact a temporary policy insuring the car . . . in case the leaning tower collapsed on it!

★★ Kennel Holt Hotel

Cranbrook, Kent
(tel Cranbrook 2032)

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enjoyed in this lovely Elizabethan manor house, surrounded by five acres of gardens and woods, where proprietor Geoffrey Fletcher invites guests who might find a weed in the immaculately-tended flowerbeds to bring it in so that he may identify it. Cooking, supervised by Mrs Fletcher, is good, produce from the kitchen garden being much in evidence. Cars may be parked in the large gravel drive.

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★★★ The Marine Hotel

Salcombe, Devon
(tel Salcombe 2251)

A seaside holiday hotel with a difference, the Marine stands just above one of Devon's most beautiful estuaries. Amenities include indoor and outdoor swimming pools, terraced gardens and bedrooms with balconies overlooking the sea. Cooking is remarkably good, with service to match. Friendly staff and a large, walled private car park.

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ROBIN WILLS

Robin Wills is the AA's chief hotels inspector—an iron-digestion veteran of every kind of eating house in the kingdom. But why don't YOU write and tell DRIVE about good, and bad, experiences at home and abroad? We'll publish—and pay £5 for—the best

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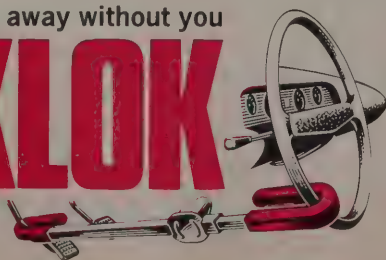
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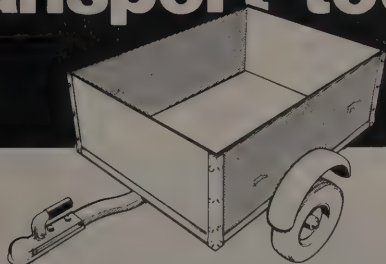


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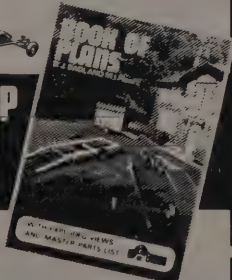


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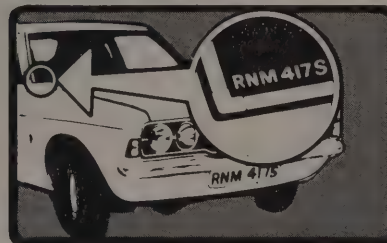
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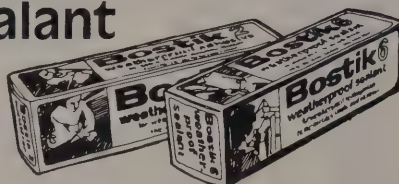


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Hoopers of Bristol 1 Maypole Sq., Church Rd., Hanham, BRISTOL. Tel: 676563

*Sportstune, 10 Brandon Terr., EDINBURGH EH3 5EA. Tel: 556 3507

Aldon Automotive Breenner Ind. Est., Station Drive, Off Brettell Lane, BRIERLEY HILL. Tel: 0384 78508

P.A.O. Preparations Newport St., SWINDON. Tel: 20433

Turnpike Motors, 20A High St., HORNSEY, London N8. Tel: 348 1246

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*Chris Montague 380 Finchley Rd., LONDON NW2 2HP. Tel: 794 7766

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Tricentrol Ltd., Robjohns Road, Widford Trading Estate, Chelmsford, Essex. Tel: (0245) 64111

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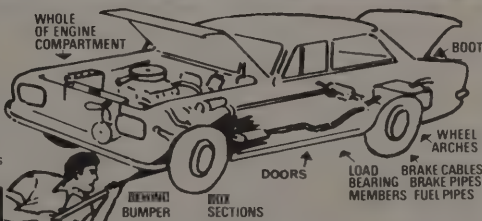
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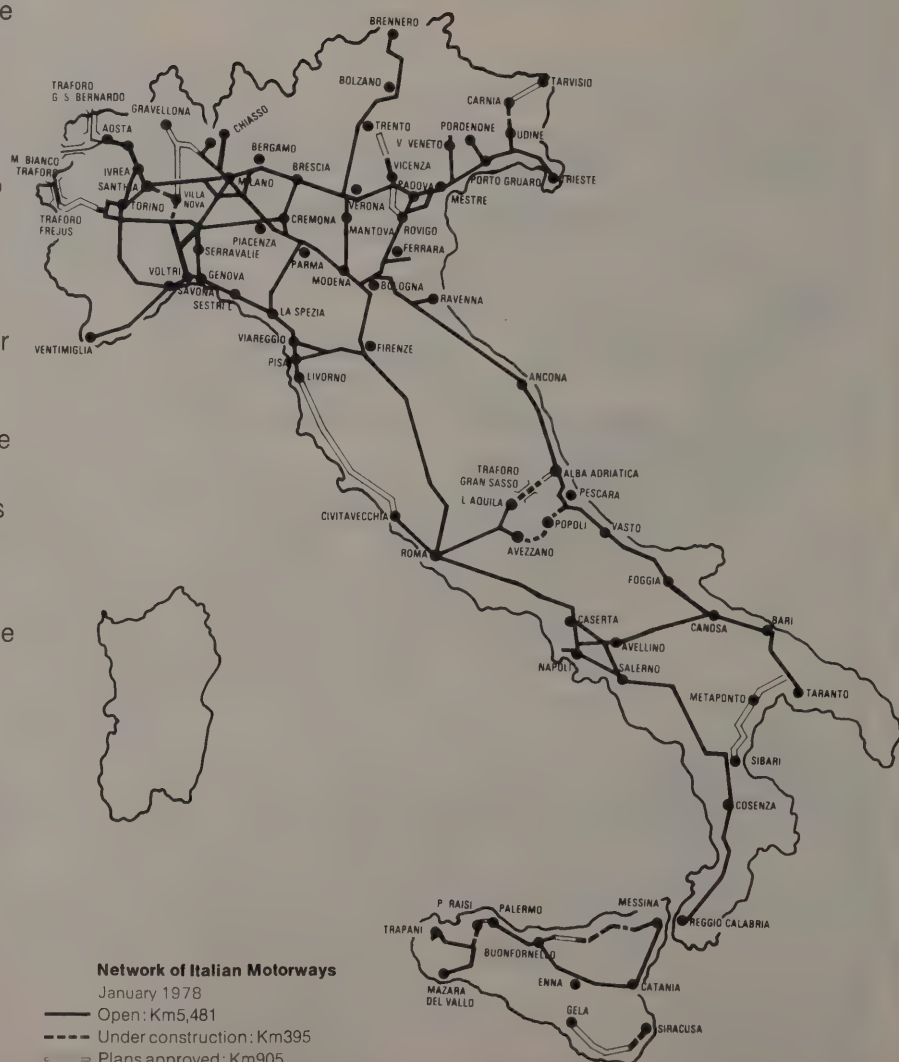
Figures based at the rate of exchange of 1590 lire to one pound sterling, as on May 22nd.

1 gallon of ordinary costs	£1.39
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Ford Cortina 2000L



Fiat 124 Special



Vauxhall Viva HC



Austin 1100



Renault 6

£700

You pay your money and...

RECOMMEND your first banger? It wasn't so long ago that a few crumpled fivers would buy a car with a real chassis, something that would last... even if its wings did have more holes than a lace curtain. As Moyra Bremner recalls on page 6, the simple strength of such humble heaps inspired a grudging sort of admiration.

But in 1978, it seems, a banger-buyer risks parting with far more cash for little more than a mobile junk heap.

Drive asked five young motorists, four men and a woman, to scour the "bargain basements" of the secondhand market for their theoretical best buys around the £700 price bracket. Their results were no surprise—to drive, at least. The dealers whom our shoppers met were reluctant to spend any money on correcting a cheap car's faults, preferring to wait and see how many faults the prospective buyer could spot on his all-too-short test drive round the block; four of the five were the lame survivors of earlier accidents.

Only one of our shoppers fell for a foreigner—and the Fiat 124 Special selected by 22-year-old Paul Smith was by no means the runt of the litter. Perhaps the

real surprise in this sickly selection was the Austin 1100 picked out by sales representative Malcolm Jones. A former car dealer, even he was shocked by the AA engineer's opinion of his choice. Like Malcolm, buyers in this price range could well lose more than just money...

AUSTIN 1100

Malcolm Jones, 29, drives a Vauxhall Cavalier company car in his work as a Honiton, Devon, sales representative, so he set out to find a small, economical run-about for his wife. He returned very depondent. "£700 isn't banger-money to me," says Malcolm, "yet all the cars at this price seem to be absolute rubbish. When I sold secondhand cars, I was fussy about their appearance, but these were filthy."

"My first choice was a 1972 Austin 1100 at £725—easily the best of the bunch—even with 66,000 miles on its clock. It had had a few minor bumps, but was well presented. When I drove it, all went well—with the exception of one of the nearside brakes, which kept binding, a squeaky steering wheel and a rattling exhaust. The dealer didn't seem wildly enthusiastic about an AA inspection, but he did offer a £25 discount for cash."

"My second choice was an eight-year-old

Renault 6 at £695. Strangely, the dealer suggested that I could get its history from the previous owner, who lived nearby. But he wouldn't let me drive it as it had not been through the workshop. He, too, wasn't very keen on an AA inspection, saying that the AA were "bound to find something wrong". I didn't take up his offer of getting a local garage to look it over for me—I suspect he knew all the mechanics in the district, and £5 can still buy a favour... The final straw was the news that a guarantee would be £30 extra!"

Despite his caution and experience, Jones was shattered by the AA's opinion of his Austin. "How can anyone offer such a car for sale? I had mentioned some of the faults to the garage, and I'm amazed that they hadn't been fixed before the engineer arrived. Apparently the dealer just doesn't care."

Second opinion

The AA's expert was adamant about Malcolm's "best of the bunch" banger: "Purchase NOT recommended—at any price. Time and the weather had taken its toll of the bodywork. The engineer noted, 'There is accident damage around the rear end, and the rear subframe is structurally weakened by rust'. More disturbing was the severe corrosion around the seatbelt anchorages and the floor—failure points."

in an MoT test. Cosmetic body problems included severe rust in the sills and front wings, and blotchy paintwork that had been badly resprayed in varying tones.

Things were no better under the misaligned and blistered bonnet: even the coolant in the radiator was rust-coloured, and what little oil there was *inside* the engine was about as dirty as the oil that coated its outside.

The starter operated only intermittently, and, once on the road, the engineer noted considerable tremors through the steering caused by defective swivel assemblies, while both the silencer and the manifold flange leaked exhaust gas into the car. The gearbox's remote control and synchromesh units were suffering, and the brakes were inefficient, pulling to the right. The engineer summed-up his catalogue of disasters by noting that 14 repairs were essential—and a further 12 desirable—to make this 1100 roadworthy, a potential repair bill well in excess of the price of the car. There might well have been even more faults lurking inside the boot, but as the key was missing...

FIAT 124 SPECIAL

A bachelor journalist from Camberley, Surrey, Paul Smith demands reliability first and last from his 1973 Ford Cortina 2000GT. But he quickly realised that, in the cheap-car market place, reliability is a scarce commodity.

Paul was sorely tempted by a 1965 Triumph Spitfire at £595: 'I know the car was old,' he says, 'but at 66,000 miles, it really did look good. I suppose the mileage could have been right—but maybe the clock had been round once already.'

'But I'm no expert on cars, so I decided that I should make a more down-to-earth choice. That's why I settled on a 1972 Fiat 124 Special priced at £625, with only 40,104 miles clocked up. It caught my eye because it appeared to be in such good condition. I looked carefully, but couldn't fault it on anything serious.'

'Usually, I'm not keen on foreign cars because of their parts prices, but I decided that, in this case, it would be worth it. The Fiat looked like a million dollars compared to some of the rubbish that garages were trying to sell.'

Second Opinion

The AA man's expert eye soon spotted that Paul's Fiat was another victim of crash damage. For, although Ziebart rust protection had kept corrosion to an acceptable level on the body panels, the righthand wing had been renewed recently—betrayed by poor-quality welding to the inner fitch panel—and the whole body resprayed.

A road test revealed that the brakes needed immediate renewal, as the front discs were worn down to a squealing metal-to-metal contact. The clutch required adjusting, too—and, with little adjustment left, a new clutch would soon be needed. There were also the usual signs of neglect under the bonnet: oil needed

replenishing, valve gear adjusting, and the carburettor needed tuning.

To keep the buyer in the dark, one headlight was out of action on main beam, and both reversing and numberplate lights were illegally inoperative. Four out of the five tyres were in reasonable condition, but the nearside-front was worn well down on its inner shoulder—clearly a case for a steering-geometry check. The suspension, too, was beginning to suffer from hardening rubber bushes and, at the back, worn radius arms.

The expert's conclusion? Well, if the 16 repairs he regarded as essential were made good and a very thorough service thrown in, he would not actually say that purchase wasn't recommended...

VAUXHALL VIVA HC

I'm not really a nervous driver,' says Marion Green, 28, a social worker from North London. 'But after seeing a friend drive his Citroen Dyane into a Hillman Minx, and the Citroen literally fall apart, I prefer a car that won't crumple easily.'

Marion runs a five-year-old Simca 1100, and initially set out to find a similarly solid car, such as a VW Beetle or Morris 1000. In the end, she fell for a K-reg, 1972, two-door 50,000-mile Viva at £695, admitting: 'I was intrigued by the price. There was another Vauxhall of the same age next to

it, but going for £200 more. The dealer told me it had belonged to his niece, but, when I asked if there was a guarantee, he simply said: "What better guarantee is there than the fact that I've been trading from the same place for 25 years?"'

'My second choice was an H-registered Morris 1000 Traveller with 61,000 miles on the clock at the same garage. The dealer said that I could have it for £500 there and then, but that, if I waited until the car had been through his workshop, it would cost me £750. My third choice was another Traveller that had done more than 82,000 miles, and again the dealer said that the price would jump from £595 to £700 if I waited.'

'I wondered if the Travellers had been resprayed: I once had my own car de-rusted and resprayed, and a year later it was back to square one.'

Second Opinion

Marion had, in fact, picked the least objectionable car of the budget-priced bunch. This Viva provided no surprises for the AA's engineer, its faults being representative of the breed at this age; he was able to advise that 'the price of £725 is within the average for such a car'.

Again, this car had been in an accident. The front apron, offside front end and both rear wings were damaged—as was

£700 SPOT CHECKS

Veteran and vintage cars are classified by a strict dating system—but nobody can say at what age a car becomes a 'banger'. There's no doubt, however, that when you're shopping with only £700 you are perilously close to buying a car which, if it were a horse, would be shot! Of course, there are exceptions, but, with a six-to-seven-year-old, you get strictly what you pay for.

Body rot is the main problem. Remember that mechanical parts can be replaced, but a body can't, so look to that first. Only if the bodywork is reasonably sound should you bother to give the car a DIY-style 'MoT' test, checking particularly the brakes, steering, suspension and tyres. Probably way out of tune, the engine should be examined for heavy oil leaks, knocking, cracked hoses and a worn fan belt. Check the transmission in a road test for clutch slip and worn synchromesh, and make sure that all the lights work.

Tempted by a Fiat 124? Watch for rust attacking the doors, wheelarches, body sills and underwings. Fiat's revised thinking on rustproofing in the early seventies improved the 124's resistance—but there was plenty of room for improvement. Check the wheels, too, and make sure that the brake-pipelines and adjacent areas are free from corrosion. Mechanically, you can expect a lot of valve-gear noise from the rockers and timing chain, and there will, no doubt, be oil seepages from the sump and timing-case seals. The steering and front wheel-bearings should be checked for wear—the axle will probably be noisy, too, but, unlike bearings, its growl doesn't mean immediate failure.

Austin 1100 and 1300 models have a lot of classic faults—rotted subframes and jacking points, rusting wings and headlamp crowns. The lower areas of boot lids and tailgates take on a lacy look, floors get damp, and, on the estate, the bubbling of 'woodwork' side

trims is almost inevitable. After 65,000 miles, the driveshafts will be suffering (for the second time) from a death rattle either on cornering or take-off. If silent, they have been replaced recently. The rugged A-series engine usually suffers only from the odd oil leak, a blowing exhaust and valve-gear clatter—all of which can usually be rectified. Engine mountings, however, may be soft and tired. Check the synchromesh for wear, or be prepared to double-declutch on downshifts. And if the car's squatting like an overweight duck, it's just that the Hydro-lastic suspension needs re-pressurizing.

Much-improved rust-resistance after 1969 helped Viva bodies, which often need be checked only for rusting stone-chips and for rust 'bleeding' from the edges of door panels, boot and bonnet lids. Again, check that the floors are not damp. Brake pipes and the steering column's flexible coupling should be checked for deterioration; oil leaks will probably be visible from the rocker cover and crankshaft seals—not a serious fault. Noisy valve gear and timing chains can usually be quietened by adjustment, but worn synchromesh will mean a rebuild. As with the Fiat 124, axle noise is more disturbing than dire.

Cheap parts and a multitude of dealers make Ford Cortinas one of the country's most popular secondhand buys. In early versions, the 2litre engine did have camshaft problems, and a replacement could well cost £100 (parts and labour). The symptom is a clatter like a diesel engine.

Poor paintwork is also characteristic of these early Fords—especially around wings and wheelarches. Anti-roll bars, added in 1973, greatly improved handling, and the revised models also had easier-to-read instrumentation. But beware—the Cortina is a popular hire-car, so it might be worth checking the registration documents of high-mileage examples.

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the bonnet and rear apron. Small cracks were appearing in the door frames—a characteristic problem—and there were numerous chips in the paintwork, generally. Both seatbelts had damaged buckles that would probably fail an MoT.

A thorough service would have set most of the under-bonnet problems right: the coolant level was low, thanks to a leak from the top hose, the fan belt was at the end of its life, and the engine misfired.

Following motorists must have been confused by the Viva's stop lights, which remained on after the brake pedal was released. The steering revealed problems, too, vibrating at speed and pulling to the right—as did the brakes. It was a pleasant change to find the rear suspension, underbody and exhaust system in good order, but the engineer raised his eyebrows at the clutch: excessive free pedal movement.

In all, the AA's expert listed 10 essential repairs in addition to a major overhaul, but in this banger's case the end result would be a serviceable car.

AUSTIN 1300 ESTATE

Phillip Rimmington, a 29-year-old work-study engineer from Lutterworth, Leicestershire, was up to the dealers' tricks. He took along a magnet to sort out the filler from the metal—but, when it came to the test, he was too shy to use it!

Phillip needed a car with room to carry his racing bicycle—a large saloon or a modest estate. He decided to buy privately, and settled on a 1971 Austin 1300 estate priced at £595. 'From a distance,' said Phillip, 'it looked good, but a closer look revealed new sills which had been badly welded and filled.'

A Vauxhall Viva for £625 was Phillip's second choice. 'A nice car, well looked after with 73,000 miles clocked up,' he recalled. 'I was put off by the owner's aggressive attitude.'

Despite his careful inspection of the Austin 1300, Phillip was shocked by the AA's verdict. 'It had passed its MoT a month ago; I wonder how?'

Second opinion

The AA inspector needed no magnet to detect the surplus of body filler that held the 1300 together. Again, there was evidence of accident damage, and the refinished paintwork was of a poor standard, showing surface blemishes, under-surface marks and a high degree of paint overspray. Attempts had been made to plate the sills and the floor panel, but two large, corroded holes were visible along the nearside of the offside floor panel, and there was a rusty crack in the offside-front floor panel. Not surprisingly, the non-standard carpet was water-logged.

The suspension, too, was a sorry sight. At the front, the mountings had cracked with age, while the rear subframe was not only bent but split, indicative of incorrect towing—possibly after its crash.

There was nothing amiss under the bonnet that a good service couldn't put right: the hose on the heater's water-valve

needed urgent replacement, and there was a general loss of oil from the rocker cover which had fouled the engine. But one engine mounting had begun to shear...

All the tyres had tread enough to allow a road test, during which the intrepid inspector discovered too much play in the steering-column bushes and a nasty transmission noise which suggested that the idler gears were ill. A new exhaust system had been fitted—but badly, for it was blowing at the manifold flange.

The sorry saga filled more than six pages of the engineer's report—which concluded that there would have to be nine essential repairs before this estate was worth inheriting.

FORD CORTINA 2000L

Gary Duncan, 20, a photographic librarian for the Forestry Commission in Edinburgh, scanned the local papers and made his selection from the columns of private sales. But the turnover of cars was so rapid that both his first and second choices were snapped up before the AA's engineers could move in.

So, after losing a 1973 Mini Clubman estate for £650 and a 1971 Ford Cortina 1600XL estate for £675, he turned reluctantly to the dealers.

'I run a Cortina 1600GT MkII,' says Gary, 'so I was pleased when I found a 1972 MkIII Cortina 2000L tucked away at the back of a local garage. I realised that the insurance would be a bit steep, but, as the garage was asking only £695, it seemed too good to miss.'

'The dealer told me it was £400 below list price; he was clearing out his old cars to make room for some new ones, so he wanted cash—no trade-in.'

'The Cortina seemed to be tidy, with good tyres and no serious rusting.'

Second opinion

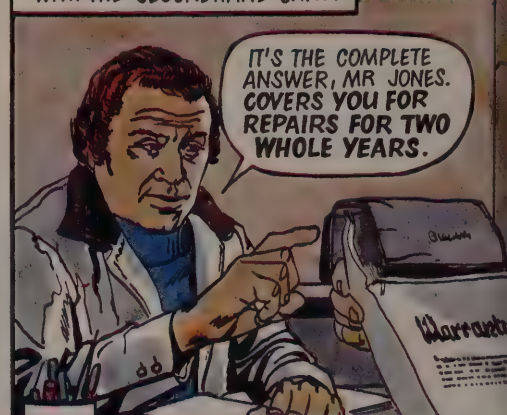
The Cortina's bodywork was the reason for its price reduction—it should have cost £1150 in good condition. It was not a pretty sight. Its lower half was covered with large patches of rust, as was the inside of the nearside front door. The doors were stiff to operate, both wing mirrors were missing and the boot was very dirty. But Gary *had* managed to pick the only banger that had never been banged.

Again the AA's engineer found that the engine was overdue for a good service: the fan belt needed some adjustment, and there were oil leaks from the engine. The battery was totally flat and the rear number-plate light had also expired.

On the road, its performance was acceptable, apart from serious brake judder and excessive play in the lower steering column coupling—a typical problem in elderly Cortinas. The tyres themselves were only just legal, and the front pair's wear showed steering-geometry problems. The nearside front shock absorber was very weak—they have to be replaced in pairs—and the front hub bearings also needed attention. In all, the engineer totted up 13 essential repairs and five desirable ones. ●

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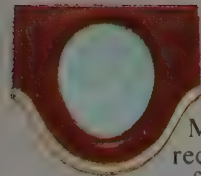
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D52



IT'S HARD to resist the tired jokes when the conversation turns to public lavatories, but we'll try. More difficult still to avoid recalling a favourite piece of graffiti, but you've probably seen it yourself. The memories, however, that are causing DRIVE's reporters most anguish are of some particularly diabolical British loos.

Sadly the condition of Britain's public conveniences is no laughing matter. Rather, as DRIVE's latest survey of more than 600 throughout the country shows, the travelling loo-user has a great deal to complain about:

Nearly a third of all the town loos inspected had no paper and two thirds no hot water.

And it was even worse in rural-roadside toilets, where paper was missing in more than a third, and at least every other one didn't provide any kind of towel or hand-drying equipment.

And they aren't getting any better. Exactly 10 years ago, when DRIVE monitored 700 roadside loos on selected stretches of Britain's roads, the odds against finding a lousy loo were reversed: 65% had at least some form of hand-drying facility, and only 14% of 1968 loos didn't have toilet paper.

Are today's lavatories the latest victims of neglect and indifference? Is it another result of cut-backs in local-authority spending? Is the ever-ready excuse of 'vandalism' really justified, or just a convenient excuse?

DRIVE's survey set out to inspect every kind of toilet facility within easy reach of the motorist, sending reporters of both sexes to visit an equal number of Ladies and Gents all over Britain, armed with exhaustive, 40-point questionnaires covering hygiene, upkeep and equipment.

Five main 'categories' of loo were inspected: 316 were in towns, 148 at roadsides, 70 at garages and filling stations, and 36 in roadside cafes; the rest were motorway super-loos.

So antediluvian is the attitude of a handful of local authorities to town lavatories that six didn't even have separate provision for men and women.

On the other hand, the councils' attitude to money is less antiquated, seeming determined to stamp out the phrase 'spend a penny'. True, only 61 local-authority loos demanded payment, but 37 wanted 2p for use of a WC. And the squeeze is even greater in Scotland, where 111 lavatories came under scrutiny; here, 21 demanded payment, and 20 of those wanted 2p—the highest proportion in the UK. Only two garages demanded 1p—the rest were free.

But if you want to 'spend a penny' and not pay for the privilege, then Wales and the West Country are the areas to visit. Here, only two out of 144 asked payment—both 2p. In the Midlands, 17 out of 103 wanted a penny, and two 2p.

One of the worst horrors of public loos is the WC that won't flush... and hasn't for

some time. In roadside lavatories, nearly one in seven cisterns didn't work and one in three WC bowls were disgusting.

It's not just a rural problem, either: 80 town loos had evil bowls, and 26 of the cisterns serving them were not functioning. Worst area was the South-east, with nearly a third of 114 WCs dirty. *Throughout the country, you can expect one in four to be in a disgusting state.*

The condition of loo seats was just as unpleasant: 36% of all seats were described as 'unacceptable'; in the North, that ratio rose to close on half.

If you go into a roadside WC, you are twice as likely not to be able to bolt the door than if you go into a café's. And it's only slightly better in town loos, where 32% had ineffective locks as against 39% at the roadside, and 19% in cafés.

The survey suggests that vandalism is *not* the only cause. Of the 168 loos where the bolts were not functioning, DRIVE's ladies and gents reported that only 115 looked as though they had been vandalised. Lack of maintenance had apparently claimed the other 53 locks.

Vandals, conversely, were the overwhelming culprits in most unsecured Scots loos—88%—and this despite the fact that more than half of those inspected had lavatory attendants.

George Peggie, deputy director for environmental health at Stirling, outlines the dilemma: 'If you want to prevent vandalism, the choice is either to pay an attendant—even a 14-hour part-timer costs £18 per week—for each loo, or to use a mobile squad to tour several sites.'

'Last year, we spent £12,000 repairing vandalism and other damage in our 50 public conveniences. We have had to cut the opening hours by 10% to keep them up to minimum standard. Next year we hope to spend £15,500, but it won't be enough.'

At Kirklees, near Huddersfield, the council has built a £15,000 stronghold in which pipes have been buried in double walls, and pans and handbasins have been reinforced. And these draconian measures have been a success. Now, a £20,000 block to a similar design is planned at a local multi-storey car park.

At Carrick, near Truro, Cornwall, vandalism, attributed largely to tourists—the local people call them 'Emmetts'—has forced the council to put up notices at closed lavatories stating that they will not be reopened until funds are found to pay for repairs.

A bizarre attempt to combat the vandals was tried in Perth: there, the local authority installed two closed-circuit television cameras in a much-battered Gents, and, for a time, it deterred the vandals. But then they tumbled to the fact that these 'cameras' had no wires, and the vandals were soon back at their dirty work.

Jack Richards, assistant director of environmental health for Manchester City, claims that, of the £40,000 spent last year on upkeep of the city's 161 conveniences, £7400 was used to repair damage done by vandals: 'Even so, we

can't keep pace with it, and that's why so many of our loos are looking so bedraggled.' Next year, Richards hopes to have another £40,000 for improvements.

An attempt to install so-called vandal-proof equipment has meant that many councils have had to up their loo-dues by half as much again. Some handbasins, for instance, are now being marketed with the claim that they can take the full weight of someone standing on them!

'There is no such thing as 100% effective anti-vandal equipment,' Richards goes on. 'What we prefer to do here is to clean our unattended lavatories at least twice a day, which acts as a form of surveillance. Even so, it takes only a few minutes' concerted effort by a group of vandals to cause hundreds of pounds worth of damage. It's expensive entertainment for idiots.'

The Council of the British Ceramic Sanitary Ware Manufacturers recognises that makers have a tough job trying to keep one step ahead of the hooligans. 'When we fail,' says spokesman Geoffrey Webb-Bowen, 'it's the public that has to foot the bill. Surely it's time we stopped hiding lavatories away in dark corners for "decency's sake". People have a right to keep an eye on what's going on. We've no need to be so Victorian...'

DRIVE's army of inspectors reported that they wouldn't be happy to let their children go into nearly one in three of all the lavatories examined.

Nearly a quarter of all lavatory floors were dirty; another quarter wet: just over half of loos in towns and 57% by roadsides had either dirty or wet floors, as against 31% in cafes, and 33% in filling stations.

Mercifully, fewer than a quarter of the loos smelt offensively, though most didn't smell strongly of disinfectant, either.

Surprisingly, in view of recent criticisms, the best news on loos nonetheless comes from the motorway service stations.

Out of 28 service-station loos inspected, only one had a cistern that didn't work, and only one WC and one floor were dirty. Two lacked toilet paper—despite being manned—and two didn't have hot water. Soap was missing in one; three failed to have plugs for basins.

Their record is particularly commendable since no motorway service-area operator is allowed to charge for toilet facilities. And, according to a Department of Transport survey, 71% of motorists draw into service areas only to use the lavatories, while 45% stop to eat and 35% buy petrol.

The companies running the franchises complain that the financial burden of the free-loo service is in fact crippling. Clive Lindley, chief executive of Road Chef with six motorway service areas, reckons that his lavatory bill is about £100,000 pa.

'Toilet paper alone is about £25,000,' he says. 'Last year, 70 million people used Britain's 36 motorway service stations, and, if 71% stop to go to the loo, there are 50 million people enjoying that facility free of charge.'

'The only way we can survive is to struc-

THE GREAT BRITISH LOU

Behind closed doors

ture our catering, shop and forecourt prices to allow for them. Customers who come to eat or to buy petrol subsidise them.

'I believe that it's time people were made to *pay* for motorway toilets as they do on the Continent. In Germany, you pay for soap, towels and loo paper—no wonder they can afford to keep their places looking immaculate.'

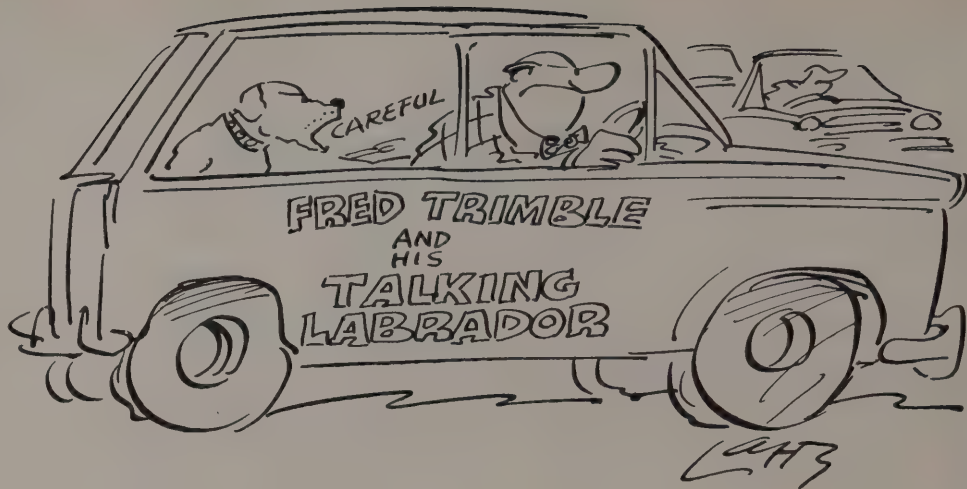
Brian Gaitensbury, Granada's motorway-services boss, is also unhappy with the present situation. 'On a peak day,' he says, '30,000 people use our M1 Todington area alone. We are obliged to provide free toilet facilities every hour of 365 days a year. It costs us thousands of pounds in maintenance, materials and staff wages.'

'I don't *want* us to charge for loos, but I do hope that the government's report on motorway services, due out soon, will in fact recommend that we get some help with our expenses.'

Alan Hearn, managing director of motorway services for Trust Houses Forte, which runs 12 service areas, also wants to keep his loos free of charge, but vandals, pilferers and graffiti artists are accounting for a large slice of the £300,000 a year that his company spends on loo maintenance. 'We use the toughest equipment that money can buy, but we are forever having to replace locks, hooks, handles and other paraphernalia,' he complains. 'One night, we lost six mirrors...'

Noticeably absent in motorway toilets visited by DRIVE is the work of the graffiti-artist. In fact, there was only one case—but then, all had tiled walls.

Our investigations confirmed that the volume of graffiti in other loos is directly related to the amount of tiling on the walls. It's a lesson that the Scots learned early:



more of Scotland's toilets have tiled walls than any other area in the country. As a result, DRIVE found no wall-crawling in threequarters of Scots lavatories.

On the other hand, the South-east gives the wall artist most scope, with just over half the number of loo walls tiled, and nearly a third defaced. Roadside loos fared worst, with 'murals' in 45%.

Even when local authorities smarten up their public lavatories, they rarely make them more attractive or agreeable. Only a tiny percentage of all town and roadside public conveniences are heated, and, even though several years have passed since legislation attempted to give the disabled a better deal, no provision is made for them in nearly threequarters of all town loos or in 82% of roadside loos. By comparison, 25 of the 28 motorway lavatories cater for disabled people.

Local authorities will go on protesting

that things can't improve until they have more money. But no amount of cash is going to be enough unless it buys the public convenience a new image and a new respect.

Perhaps the answer is in the self-supporting site, where proceeds from vending machines in an adjacent block help to pay for the maintenance and supervision of the toilets. The idea is not new. Two self-supporting kiosks-cum-public loos have been operating successfully on the A449 Newport-Worcester road since 1974, and are expected to recoup their costs within the next 10 years.

Another answer may be in encouraging private enterprise to build 'super-loos'. To use them would involve charges. But at least they will make 'spending several pennies' in public places a less-degrading experience than it often is today.

ROLAND WEISZ



MOTURING LAW

Perfect nonsense

CONFIDENT THAT his 1976 Fiat 128 was a bargain at £1400, company director Alan Broughton advertised it for sale in the local paper as being what he called 'in perfect condition'.

It was a claim that could have landed him in court, for the car had been in a minor accident three months before.

The damage was confined to the front of the car, and Broughton had no reason to doubt that the garage had done a good repair job. But when Roy Dixon went to see the car, he decided to test the

wording of the advertisement with an AA vehicle inspection before clinching the deal. Unhappily for Broughton, the engineer's report revealed tell-tale signs of the accident repairs—and a defect in them that would not have been obvious to Dixon's untrained eye.

'If I'd bought your car, I could have sued you for misrepresentation,' Dixon told Broughton angrily. 'That car isn't in perfect condition.'

In fact, Broughton was rather unlucky to come up against a customer like Dixon. For, despite the armoury of consumer-protection laws ranged these days against commercial traders, a private seller is not in the firing line of most of them.

Apart from the 1967 Misrepresentation Act, a seller is vulnerable in the criminal court only if he sells an unsafe vehicle; he could, however, find that he is liable under civil law for making a fraudulent claim.

'The consumer-protection laws are a jungle,' says Jack Smith, the AA's legal manager. 'But, generally speaking, a private seller meets fewer pitfalls than a trader. So the best advice in a private

transaction is: if you sell, say nothing that is untrue or misleading; and if you buy, remember the old trading maxim—'let the buyer beware'.

'I'm not sure that Dixon was justified in being quite so cocksure about his rights,' he adds. 'True, Broughton may have been wiser never to have advertised the car with the words "perfect condition", but he could also have been entitled to a defence because he genuinely believed that his description was accurate.'

'On the other hand, if Dixon had discovered the defect for himself after he had bought the vehicle, and could have proved that he had been misled by the description, the court would have been justified in awarding damages against Broughton—and might even have cancelled the transaction.'

Unwarranted enthusiasm for the car you want to sell is no defence against a claim for misrepresentation, and a seller is only on safer ground when he avoids wording his advertisements in a way that can be misunderstood.

Your sales 'patter' should be considered, too. 'Honestly answer only questions that are within

your knowledge, and don't be drawn into giving opinions about the car,' advises Smith. 'Suggest, if the buyer wants to know more, that he gets an independent inspection like Dixon. Nor is it any sure safeguard for the seller to offer the buyer a receipt for his money with the so-called get-out phrase "as seen, tried and approved" written on it. It is doubtful whether these words form part of the contract, and, in any event, they certainly don't absolve the vendor from his responsibilities to sell a road-worthy, safe car.'

Any buyer dealing with a private seller must realise that the vendor's obligations are limited. If, however, the seller can be shown to be, in effect, *trading* in vehicles, any advertisement that he publishes offering cars for sale privately may make him liable for prosecution under the Fair Trading Act order that came into operation this year.

It may seem like a buyer's world these days. The trouble is that, sooner or later, most buyers also have to become sellers...

Got a motoring law problem? Write to DRIVE's helpful Q & A Clinic—page 40.



AVENGER



VW GOLF



CITROËN GS



SIMCA 1100



CHEVETTE



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range has its own characteristics but they all share the same quality of light, airy spaciousness. And that isn't at the expense of storage space either. Ingenious use of under-seat storage, full depth wardrobes, wall cupboards and kitchen space ensures that a family of four have plenty of room to pack clothes, food, sports equipment and all those extras that make such a difference to holidays.

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a part on demand. If not they'll get one delivered by the fastest possible means. And when you have your caravan serviced; usually in Spring and Autumn, your CI caravan will be serviced by CI-trained men. No other caravan manufacturer offers a spares, repairs and service organisation like this. Ask around and find out for yourself. Finally, every new CI caravan is backed by a one year guarantee for spares and labour. And for a nominal sum you can extend that warranty for a further year and get the same benefits.

We thought of you when we appointed your local CI dealer

A lot of CI dealerships are family businesses run by people who understand exactly what you are looking for. Because they are often caravanners themselves. Your local dealer will be happy to answer your questions and give you all the help he can. Go and have a chat this week-end and look round the range. It's a very pleasant way to spend an hour or two.

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D/7/78

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WORLD-WIDE

Rotary club

REMEMBER the Wankel rotary engine? It died the day the Energy Crisis was born, killed off by a (then largely undeserved) reputation for fuel thirst. Big companies like General Motors, Volkswagen and Citroen either stopped development work altogether or gave Wankels a low priority.

But, on the other side of the world, Japanese Toyo Kogyo, maker of Mazda, nailed its colours to the rotary mast. Its one-time intention of making nothing but Wankel-powered cars was shelved, but it kept the rotary in production, and kept on with development too. Now a risky bet looks like paying off.

The rotary is creeping back into favour, and TK's own Wankel-engined Mazdas are selling well. In particular, there are great hopes of a new rotary-engined sports coupé being launched now

for the Japanese and US markets, but not due in Britain until some time next year.

Looking like the Triumph TR7 maybe *should* have looked, its rotary engine gives it light weight and high power to complement a svelte but sporting appearance.

Heavy tread

Think your tyres are expensive? Then feel for the man with a set of Anglo-Italian **Pirelli's new P7s**. When replacement time comes, each will cost him around £150 at today's prices. That's £750 for a set, if you include the spare.

The P7 is a new super-grip tyre available on cars like Porsche and Ferrari. And there's no escape from buying it: the P7 has such a low profile that it needs special large-diameter wheels to maintain the overall diameter of the tyre. And no other maker's tyres fit those wheels...

New Americans

Used to thinking of American cars as Chevrolets, Fords, Chryslers and the like? Then get ready for a change. Within the next few years the list of US car makers will include at least two, and possibly as many as five, **other makes**.

The first US-built Volkswagens are going into dealers' showrooms now, and will be followed within a year or so by US-built Renaults. Honda, too, is busy

making plans to assemble cars Stateside, and Datsun and Toyota are thinking about it—the former, at least, with conviction.

Why this sudden rush to what was once a stronghold of the home team? America currently imports around 20% of all the cars sold there, but the foreign manufacturers fear that the falling dollar will price their cars out of the market unless they are produced with American labour (which is beginning to look cheap by some overseas standards).

There is also the risk that Washington may restrict imports, and that will leave local assemblers sitting pretty.

Commie cars?

Vietnam could be the next country with a **motor industry** of its own. The nation's Communist leaders have been holding talks with a number of Western manufacturers about supplying a 'package deal' to get Vietnam quickly into the manufacturing business. Short of funds of their own, the Vietnamese have a policy of inviting-in good, old-fashioned capitalism to help out as they rebuild the economy.

The front drive

European motorists have come to accept **front-wheel drive** as the norm for a large percentage of all cars sold; soon their American

cousins will be following suit. General Motors and Chrysler already make front-wheel drive cars, and FWD Fords are on the stocks in Detroit, too.

Down-under doldrums

Most of the world may be recovering from the **recession**—albeit with hiccups from time to time—but it lingers on here and there, and most notably in Australia. There, many car makers are still losing money hand-over-fist in the face of a diminished market.

Goodbye Lambo?

Motor-industry observers don't hold out much hope for Italian supercar-maker **Lamborghini**, threatened by the massive labour costs of hand-building cars and a dearth of demand for its products.

It seemed that the *prosciutto* had been saved for Lamborghini when BMW placed an order for the production of hundreds of mid-engined coupés to be sold under the BMW name and fitted with BMW engines. Now the German company is reported to have cancelled the contract, leaving Lamborghini with a slim order-book and red-hot competition from Ferrari and Maserati.

Founded in the early 1960s by local industrialist Ferruccio Lamborghini as a rival to Ferrari, the company now belongs to a group of Swiss businessmen.

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The Dunlop 'Major' Foot Pump has as large a capacity as any foot pump on the market. It's suitable for any inflating job, including truck and van tyres, and a convenient built-in pressure check valve means you can check the pressure without detach-

ing the foot pump connector from the tyre valve.

The 'Champion' is slightly smaller, but is every bit as rugged and durable as the 'Major'.

Don't waste your money on a foot pump that will let you down. Ask for the Dunlop 'Champion' or 'Major'.

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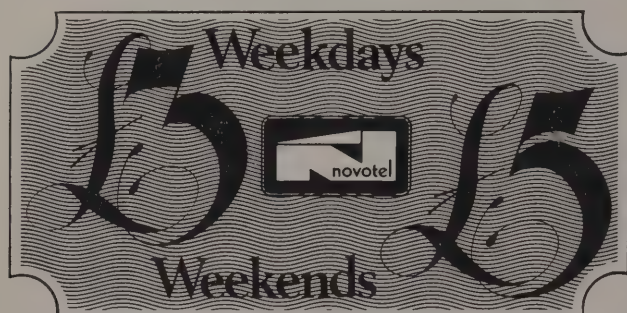
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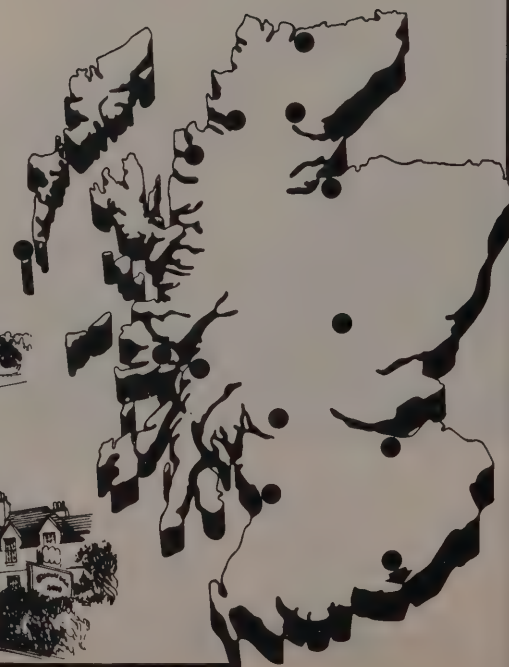
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Letters

Views to air? Tell DRIVE about your motoring and what it means to you.

You can send letters for publication—unstamped—via DRIVE Directory, FREEPOST, Basingstoke, Hants RG21 2EA

Legends of the East

We hear so much about rogue British cars—and how wonderful Japanese cars are—that I wonder what actual proof exists? Over 28 years, I have owned eight Leyland cars—two Morris 1000s and six Morris 1100s. I used them all for work and put them through some pretty severe tests, and not one let me down.

I just do not believe the legend that Japanese cars last forever and that British-built are trash. It seems to me that the Japanese have managed to get the fable accepted and can now watch the British damn their own car industry. R L Green
Bradford

One over the 20?

May I congratulate you on new DRIVE. It is, at last, of proper size. It is interesting, informative, well presented—and frightening: I refer to Roland Weisz's report 'I'm twice as good when I've had a few...' (March–April).

As I have no reason to doubt the findings of the latest Northampton Experiment on drink-driving habits, it seems to me that one can justifiably ask if all morality and responsibility has left this country? Is the risk that drink-drivers take really only one of a fine and a ban? The legal limit should be

lowered to 20 milligrams of alcohol per 100 millilitres of blood, beyond which the driver ought to be considered unfit to drive. And parliament ought to change the law so that any driver involved in an accident and having more than this alcohol level in his blood is liable to a prison sentence.

I do not wish to finish my life prematurely because a crazy bricklayer or a mean managing director feels free to take a risk.

Paul Bryant
Northampton
Derek Dutton, the AA's manager of environmental affairs, says: 'The legal limit was set by the British Medical Association, and it isn't for us to question its decision. The vast majority of offenders



consume well over the alcohol limit because they know they can get away with it, so reducing the level won't make a scrap of difference. The real problem is the lack of enforcement of the existing drink-drive laws.'

Assault on batterers

I have yet to own a car that has not had its paintwork damaged by the careless opening of a door by someone parked alongside. For less than £1, a pair of rubber buffers will certainly reduce, if not eliminate, damage to others by such thoughtless behaviour.

Capt R E H King
Mayfield, Sussex

Following our Lada

As the proud owner of a new Lada 1300ES (and previously a 1200), I can only wonder at the type of drivers and commentators DRIVE employs, having read your Lada road test (March–April).

I have found the Lada completely satisfactory in performance and reliability. I accept that you probably cannot bring yourself to praise a Russian product; but, before complaining that 'there's no choice between screen [heat] vents and car heat—it's

all or nothing', you should read the operating instructions. There is a choice of heat and its distribution. As for consumption, my Lada 1200, with four people and luggage, averaged 38mpg on a 3000-mile tour around Scotland.

Would it not be more sensible if genuine assessments of cars were based on the opinions of regular users of the vehicles concerned—actual down-to-earth car buyers, rather than the pompous-sounding people you seem to employ? I fear that your so-called 'experts' will always be disappointed with any cars that are made by mere man.

P Latham
Colchester, Essex

DRIVE's testers feel they were rather laudatory, in a measured fashion, of the Lada (did you read what they said of the home-grown Mini?), and their criticism of its various performances were based not on what was promised in printed instructions but on what they found. The down-to-earth buyer to whom you refer is represented in every DRIVE test by the Everyman Panel—Editor

Impressive figures

The new ECE15 official mpg figures have been criticised by many motoring writers as unrealistic and therefore misleading to the consumer. But, as a possessor of some 500 road-test reports from all the different services available and much manufacturers' literature, and being an avid reader of car advertisements in newspapers and magazines, I am delighted with the ECE15 table.

Many of my test reports are of similar models (some of the same car), yet they vary so much—even allowing for weather conditions, weight of load carried etc. The



MECHANIC

Safe down under

'IF THE WHEELS hadn't been left on the car, I'd be in my coffin by now.' So says Paul Jackson, a draughtsman from Eastbourne, Sussex, who had jacked up his car and slid under 'for a couple of seconds' to check its exhaust. The jack collapsed, and Jackson spent the next week in bed with sore ribs and racking pleurisy induced by the shock. A keen do-it-

yourself man, he admits he was—well, careless.

Others haven't been so lucky; a ton of motor car dropping on to the human body is more than flesh and blood can stand. And it makes an unsightly mess on the driveway...

If you intend to do much work under your car—as opposed to simply changing a wheel—it's well worth spending a few pounds on some potentially life-saving equipment. Steel ramps are a cheap method of achieving an efficient working clearance under the car—and, of course, they automatically provide a safe support at the same time. But if the wheels have to come off, you'll need more than a jack.

The jack supplied by the car manufacturer is all right for raising the vehicle, but not for keeping it up there. A jack should only be used in conjunction with stout supports, on to which the axle, suspension or strong body-members can be lowered without

the metal distorting or giving way.

Strong wooden blocks can be used, but adjustable axle stands are by far the strongest and safest support. House bricks should never be used—they can shatter. Make sure, too, that the jack and supports are on firm, level ground—if necessary, stand them on sound planks of wood. And don't forget to wedge the wheels that remain on the ground, after having ensured that the hand-brake is firmly applied.

Of course, jacking up both front or both rear wheels at a time is quicker and easier with the aid of a small hydraulic-bottlejack (about £5) or—better still—a trolley-jack (£35). But careful positioning is vital with both of these to avoid punching a hole in your sump! If necessary, use a piece of hardwood on the lifting pad to spread the load.

A lamp (with a shade, to prevent dazzle) that can be hung from a convenient point on the chassis is essential when working under

the car, but—and this applies to power tools, too—don't let the lead trail in petrol, water or oil.

Having ensured your safety under the car, you may as well be comfortable. A 'creeper'—a metal, wooden or glass-fibre backrest on castors—gives easy manoeuvrability with, in some cases, the bonus of a padded headrest to prevent uncomfortable cricks in the neck. The next best thing is a sheet of hardboard, shiny side up, which makes it easier to slither about than lying on a piece of old carpet. And take plenty of cleaning rags under the car with you, together with a surplus of tools, preferably in a shallow tray: it'll save you fumbling around for spanners.

Remember, there's no need to be vulnerable under your car, especially when all the equipment mentioned can be hired quite cheaply by the day or week. Paul Jackson nipped underneath to do a job that was dead easy. And that's how he nearly ended up. ●

whole scene is most confusing for even an enthusiast.

Personally, I find that DRIVE's 'quiet rural driving at 40mph' and the ECE 'steady-speed figure of 56mpg' are the nearest to my overall mpg expectations.
Robbie Robinson
Crediton, Devon

Still going strong

I should like to support Norah Nicholls' thesis that older drivers are not necessarily anxious (March-April). I celebrated my 60th birthday by doing the Land's End-John O'Groats return trip and enjoyed all 2850 minutes of it, driving 1794 miles between Friday 7pm and Sunday 6.30pm.
A M Bandey
Buxton, Derby

Added extras

Having recently bought a car and agreed an allowance on the list price, I was surprised to find that the dealer, on a pre-printed form, listed the price of the car, the numberplates and the delivery, calculated the VAT on the total... then took off the allowance. I pointed out that the allowance surely should have been deducted *before* the VAT was charged—and he amended the invoice. The over-charge amounted to £8 in every £100 allowance.
Herbert Goldsmith
London NW11



GREAT ESCAPES Natural break

ROBIN HOOD and his merries charged into the woodland glade only seconds ahead of the Sheriff's men... They were racing for the seats in front of the telly.

There never was a forest hide-away quite like this, deep in the heart of the 11,300-acre Cropton Forest bordering the wild North Yorkshire Moors. And no robber ever had the mod-con haven that the Forestry Commission now offers back-to-nature holiday-makers at its cabin encampment at Cropton, near Pickering.

Children tired from playing-out

adventure stories among the square miles of towering pines have their own television room, and so have adults, resting weary legs from walking hours along FC nature trails. And not just any old telly lounges, either. I watched that country vet saga *All Creatures Great And Small* in what was once a cattle byre—still with its feeding stalls. The other TV room used to be a granary.

A former bull-pen is now the camp laundry; a shop has opened in a stable; and a reception centre operates from within the stone barn where cows were milked.

The Keldy Castle holiday-village has been almost everything in its time, except a castle: that's the grandiose name it was given when a shooting-lodge was opened on the site just over a century ago by the Reckitt family, who gave 'blue' a starchier meaning than it has today. Then it became a farm—until the army took it over.

Everybody left a bit behind for the Forestry Commission to turn to advantage. A squash court that was part of the lodge has been reclaimed for its old use by the new guests, and an army cinema is now a badminton court.

Surrounding the old stone buildings, half-hidden among the Scots pine and Norway spruce that give a permanent Christmas-card atmosphere, stand 28 Scandinavian-style wooden chalets

with beds and bunks for six or more, shower, kitchen with cooker and fridge, and a roomy balcony on which you can eat out on balmy evenings.

The £450,000 centre (30 more chalets are to be added) is open all year round, with several chalets double-glazed for winter use. The commission believes that Keldy will attract many of Britain's wildlife lovers because of the richness of its bird and plant life: rare harriers and merlins have been sighted, and the many wild flowers include several species of orchid.

Although the forest is little more than 50 years old, there is a compelling sense of ancient calm. A mile up the winding by-road leading to the centre lies the remains of a Roman camp, and a few miles north on the nearby moor is one of the very few stretches of original Roman road—local folk swear that they can hear the legions tramping by on dark lonely nights...

But that is the only alien noise that guests are likely to hear in this forest sanctuary. Unless you watch the telly. BILL GLENTON

The Forestry Commission has opened similar forest cabin villages in Cornwall and Scotland. Weekly charge at Cropton Forest is £35 to £90 a week per chalet according to season. Full details from Forestry Commission, 231 Corstorphine Rd, Edinburgh EH12 7AT

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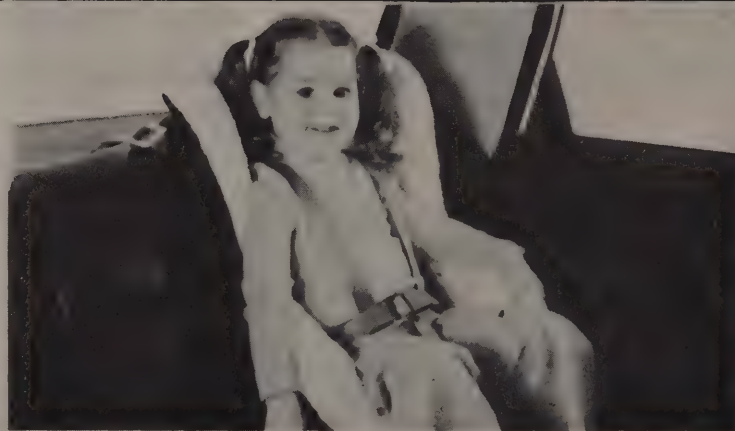
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HEALTH

Queasy riders

CONSIDERING THAT it's one of the oldest illnesses from which man has suffered, surprisingly little is known about the causes of travel sickness; its sudden and devastating effect can ruin outings and holidays alike. But what *is* certain is that it's the occasional traveller rather than the seasoned jet-setter who's most at risk. On the other hand, even Russian and US astronauts have been known to succumb.

Some travellers seem virtually immune: while children between five and 15 are the most prone, babies and old people rarely become travel-sick at all. Among young adults, women who are travelling during menstruation are the most vulnerable.

The ears—organs of balance as well as hearing—are one of the contributing factors, and people with ear defects can often console themselves with the fact that they don't seem to suffer from motion sickness. In fact, a Victorian scientist once observed that not one of 15 deaf mutes who had been sailing in rough seas had become seasick—rudimentary experimentation, but unarguably impressive. . .

What the traveller sees is important, too. People standing still in a tilting room have experienced nausea and vomiting, as have people watching films of aerobatics on a wide cinema screen. They're experiencing the same kind of feeling that a passenger on a stationary train gets when he sees the train alongside begin to pull away.

But these effects are also clues to the successful combating of nausea: anyone likely to feel ill in a ship or car should try to get as stable a view as possible of the scenery outside. It's best to avoid focusing one's eyes on objects inside, such as maps. Shut your eyes (if you're a passenger, that is) and try to think of something else. Head-rests help too, limiting the traveller's head movement as much as possible.

Car drivers rarely get car-sick, which is just as well: a common side-effect of most travel-sickness drugs is drowsiness, particularly if they're taken with alcohol. It is vital, therefore, that motorists who get queasy on a ferry think twice before swallowing travel pills if they intend to drive off immediately the ship docks.

Sea-sickness is probably the worst form of nausea, as it's liable to last some hours, and there's no way out. It is estimated that up to 30% of all passengers making the Atlantic crossing are sick for the first two or three days of the voyage. On board ship, it's best to walk around on deck, leaning into the motion of the vessel and concentrating on such unmoving objects as the shoreline, horizon or sky. ●

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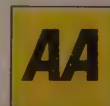
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USED-CAR PRICE GUIDE

The year dot

IT ISN'T JUST the ladies who are reluctant to reveal their true age: used-car dealers can be just as coy about the cars on their forecourts, and it's often difficult for a buyer to argue. After all, you can't look at a car's teeth.

A buyer will often rely on the car's numberplate to pin it down to a 12-month period, or ask to see its registration documents. But both are unreliable. Suppose, for instance, that a car was bought abroad and imported into the UK some 12 months later, winning an M-reg instead of the L it deserves. Or that it sat in a dealer's showroom for a year....

Buyers can, however, make a 'trade' check on a car's age by learning The Window Code, for every car has its age in years and months marked on each window.

Like other manufacturers, Triplex uses a dot-code. The year of the glass's manufacture is indicated by the dot etched under various letters of the word 'toughened', and it works like this: a dot under the letter T = 1, under O = 2, and so on through to D = 9. The space after D = 0. Dots over the word 'Triplex' indicate the month of manufacture in a more complex way, using permutations of one dot and two dots. But cars built at the end of the year can fairly easily be sorted out from cars built at the beginning. The code is January—one dot over the T; February—a dot over the R; and March—one over the E. October is one over the R and two over the X; November—one over the E and two over the X; and December—two over the X.

Be suspicious of a car that has dates on the glass that don't coincide with its numberplate.

Electrical equipment is dated, too: Lucas, for instance, stamps the 'week' number on every component it makes, followed by the year. For instance 34/72 would indicate that the part was made in August 1972.

Having checked the age, then check the price with DRIVE's table of 100 of today's most popular used-car models (prices assume vehicles are in good condition for age). Specifications are from AA Road Test Reports, the numbers of which appear on the right.

MAKE AND MODEL	Latest new price*	AA Road Test Report No	Date	engine cc	mean top mph	acceleration 0-60 in sec	overall mpg	insurance group	MODEL YEAR Average secondhand price guide						
									1977	1976	1975	1974	1973	1972	1971
Alfa Romeo Alfalusd SE	2999	354	9/74	1186	92	16.1	32.5	4	2230	1840	1505	1215	—	—	—
Audi 80 L	4095	389	6/76	1297	91	14.2	31.75	5	3045	2355	1885	1510	1190	—	—
Audi 100 LS	S	314 RI 139	1975	1761	100	12.7	29.25	5	—	2750	2180	1810	1365	1115	920
BMW 1602 Lux	D	363	1/75	1573	94	14.4	29.0	6	—	2525	2105	1935	—	1215	1040
BMW 520 i	6499	327	12/73	1990	111	9.7	29.0	S/R	5595	4730	3790	3020	2380	—	—
Chrysler Imp de luxe	D	258	9/71	875	78	20.0	36.0	1	—	1160	995	850	720	610	510
Avenger 1300 2-door	2437	337	4/74	1295	83	19.0	30.5	2	2110	1540	1320	1120	—	—	—
Avenger 1600 GLS auto	2677	339	5/74	1600	93	13.9	26.5	4	2720	2045	1740	1470	—	—	—
Alpine S	3674	381	4/76	1442	97	14.3	32.0	5	2875	2440	—	—	—	—	—
Hunter GL 4-door	3448	234	1/71	1725	86.5	15.0	28.7	3	—	1870	1595	1355	1070	900	755
Sceptre Mk3 auto	D	169	10/68	1725	97	14.1	28.6	4	—	2150	1825	1535	1290	1070	885
Chrysler 2litre auto	4159	308	5/73	1981	102	13.2	24.0	5	3180	2300	1860	1460	1110	—	—
Simca 1100GLS 5-door	2761	298	1/73	1118	85	16.5	33.25	3	1945	1575	1335	1120	935	775	630
Citroen 2CV6	1647	RI 118	1975	602	66	37.2	44.0	1	1290	1060	895	—	—	—	—
Citroen Dyane 6	1799	366	3/75	602	70	29.5	47.0	1	1395	1100	935	780	650	535	435
Citroen GS1220 Club	2895	384	5/76	1222	93	17.2	33.0	4	2175	1745	1440	1180	955	—	—
Citroen CX2000	4637	416	5/77	1985	107	12.7	29.25	6/7	3445	2800	2405	—	—	—	—
Colt Lancer 1400 GL 4-door	3070	371	11/76	1439	94	12.9	34.0	5	2250	1805	—	—	—	—	—
Daf 66SL	S	317	9/73	1108	79	23.5	29.0	3	—	—	1135	965	815	—	—
Datsun Cherry 100A 4-door	S	284	8/72	988	83	17.7	41.25	3	—	1640	1400	1190	1010	850	715
Datsun 120Y coupé	2676	336	3/74	1171	86	17.7	39.0	4	2235	1925	1630	1380	—	—	—
Datsun Violet 140J	2756	RI 132 M	1975	1428	94	15.6	32.0	4	2090	1870	1500	1260	—	—	—
Datsun Bluebird 180B	3087	316	8/73	1770	104	12.3	27.0	5	2270	1930	1625	1370	1150	950	—
Fiat 126	1571	334 RI 138	2/74	594	62	60.0	48.5	1	1175	1015	880	755	650	—	—
Fiat 127 3-door	2299	RI 137 M	1975	903	82	18.4	41.75	2	1670	1430	1220	1030	880	—	—
Fiat 128 4-door	2432	320	9/73	1116	86	15.6	34.0	3	1735	1480	1260	1065	900	755	630
Fiat 131 1600S	3049	369	6/75	1585	94	13.6	32.0	5	2430	2245	1735	—	—	—	—
Fiat 132 1600 GLS	S	360	1/76	1756	102	12.0	25	6	2445	2015	1655	1490	—	—	—
Ford Fiesta 1000 HC	2197	417	4/77	957	83	18.4	41	1	1925	—	—	—	—	—	—
Ford Popular 1.1	2123	RI 136 M	1975	1097	77	23.6	35	1	1785	1535	1325	—	—	—	—
Escort 1300XL 4-door	S	292	11/72	1297	88	16.0	31	2	—	—	1495	1290	1100	940	800
Cortina Mk3 1600XL 4-door	S	323	10/73	1593	95	15.1	27.0	3	—	2040	1685	1435	1225	1030	875
Cortina 2000E Estate	S	347 RI 116	1974	1993	99	12.3	27.5	5	—	2725	2180	—	—	—	—
Capri MkII 1600GT	S	342	6/74	1693	102	12.4	27.5	5	3015	2515	2170	1945	—	—	—
Capri 3000 Ghia auto	S	RI 114	1974	2994	113	9.9	22.0	6/7	4360	3625	3040	2645	—	—	—
Granada 3000 GXL auto	S	282	6/72	2994	108	11.7	21.0	6	—	—	2650	2055	1560	1115	—
Honda Civic 1200 3-door	2446	362	3/75	1169	86	14.7	34.75	4	1895	1615	1370	1160	—	—	—
Honda Accord auto	3555	420	5/77	1600	89	14.7	32	5/6	2890	—	—	—	—	—	—
Lada 1200	1955	355	9/74	1198	91	15	33.25	3	1400	1185	1005	845	—	—	—
Leyland Mini B50	1990	340	5/74	848	73	26.1	41.0	1	1530	1325	1050	905	770	655	555
Mini Clubman Saloon	2321	410	1/77	1098	82	18.2	40.5	1/2	1875	1605	1285	1095	945	805	680
1300 Mk2/3 4-door	D	239	2/71	1275	87.5	17.2	36.5	2	—	—	—	1075	925	790	670
Allegro 1300 Mk1	S	329	1/74	1275	86	16.0	34.75	2	—	—	1465	1235	1035	—	—
Allegro 1300 Mk2 4-door	2749	377	2/76	1275	85	19.0	37	2	2215	1815	—	—	—	—	—
Allegro 1500 Estate	3042	RI 127 M	1975	1485	90	16.6	34.25	3	2535	2120	1825	—	—	—	—
Maxi 1750 Mk2	3288	263	1/72	1748	90	14.6	28.75	3	2550	2035	1730	1465	1225	1025	855
Princess 1800HL	3707	397	8/76	1798	96	14.2	29.75	4	2645	2175	1900	—	—	—	—
Princess 2200HL	3999	RI 129 N	1975	2227	105	12.7	26.5	4	2725	2200	1940	—	—	—	—
Marina Mk2 1.3 4-door	2776	392	7/76	1275	85	18.2	33.0	2	2240	1835	—	—	—	—	—
Marina Mk1 1.8 4-door	S	295	1/73	1798	96	12.8	31.5	3	—	—	1625	1370	1150	960	795
MG Midget Mk3	S	205	2/70	1275	93	14.8	29.1	4	—	—	—	1210	1020	865	730
MGB Mk2/3	3324	243	4/71	1798	105	11.8	23.9	6	2800	2405	2030	1685	1415	1190	995
Jaguar XJ6 4.2	S	227	10/70	4235	117	10.0	16.75	6/7	—	—	—	3740	2380	1960	1635
Jaguar XJ12(L)	S	305	4/73	5343	136	7.6	13.0	7	—	—	4755	3840	2330	—	—
Rover 2200SC	D	324	11/73	2205	104	12.2	24.0	4	3815	3170	2550	2105	—	—	—
Rover 3500 auto	S	330	2/74	3528	112	11.1	20.5	5	—	3640	2875	2330	1760	1415	1165
Range Rover	8528	252	7/71	3528	101	13.2	18.0	5	8170	7305	5895	4705	3865	3195	2600
Triumph Toledo 4-door (Dolomite)	2953	345 RI 150	1977	1296	83	19.8	33.0	2/3	2345	2000	1610	1300	1115	950	—
Triumph Dolomite 1850	S	288	9/72	1854	100	11.4	28.25	4	—	2305	1935	1635	1365	1140	—
Triumph 2000 Mk2	D	219	6/70	1998	95	15.0	26.0	4	—	—	2355	2030	1415	1165	970
Triumph 2500 TC	D	RI 112	1974	2498	101	11.5	27.0	5	3890	3220	2725	2130	—	—	—
Triumph Spitfire 1500	2776	376	2/76	1493	97	12.6	35.25	5	2275	1940	1630	—	—	—	—
Triumph Stag	—	273	3/72	2997	118	10.2	22.5	S/R	5350	4360	3540	2875	2330	1835	1415
Triumph TR7	3877	401	11/76	1998	108	10.2	28.75	6	2775	2380	—	—	—	—	—
Mazda 1000 2-door	1921	343	6/74	985	98	20.0	33.5	3	1535	1310	1105	935	—	—	—
Opel Kadett S estate 3-door	2890	338	5/74	1196	84	16.7	32.0	4	2255	1925	1635	1380	1040	870	720
Opel Ascona 1.9SR	S	302	3/73	1897	96	12.3	25.5	6	—	—	1905	1535	1220	—	—
Opel Rekord 4-door	S	287	8/72	1897	101	12.0	26.0	4	—	—	1835	1510	1265	1090	—
Peugeot 104 4-door	S	325	11/73	954	84	17.3	36.5	3	—	1610	1385	1175	1000	—	—
Peugeot 304	S	386	5/76	1290	92	16.7	35.5	3	—	1990	1690	1425	1195	995	820
Peugeot 504GL	4252	RI 140	1976	1971	99	13.7	27.75	5	3295	2800	2280	1885	—	—	—
Peugeot 504 estate	4655	275	4/72	1971	98.5	13.8	24.5	5	3865	3295	2750	2255	1885	1560	—
Reliant Scimitar GTE	6332	303	3/73	2994	118	9.1	21.25	7	5520	4480	3445	2850	2405	1960	1610
Renault 4TL	2190	RI 121	1975	845	74	26.4	39.0	1	1705	1460	—	—	—	—	—
Renault 5TL	2404	349	8/74	956	85	19.7	42.0	2	1975	1685	1440	1215	1030	—	—
Renault 5TS	2899	370	11/75	1289	93	13.3	36.25	4	2255	1930	1645	—	—	—	—
Renault 6TL (1100)	2647	364	3/75	1108	82	17.9	37.75	3	2015	1720	1470	1245	—	—	—
Renault 12L	S	385	5/76	1289	82	18.1	34.5	3	2035	1765	1525	1290	1075	935	765
Renault 16TL	3419	291	11/72</												

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The new generation safety windscreen

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That's because Ten Twenty is a new generation safety windscreen. It has won a Design Council Award for its safety leadership and its performance on the Rover saloon range.

If you drive a Princess 1, you can now specify Triplex Ten Twenty as a replacement screen.

Windscreens will never be the same again

More and more car manufacturers are realising that their cars are less than perfect if they still carry conventional windscreens.

The Princess 2 is the first high volume car to change to Ten Twenty as standard fitment.

Rest assured, it won't be the last.

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10 XXX 20
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DRIVE

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Monitor

Money and roads

When will politicians get their priorities right, and Britain get the roads it needs and deserves, wonders civil engineer Paul Bryant in a letter (page 56) that congratulates the AA on its outspoken criticism of the present state of road maintenance (DRIVE July–August).

They're questions that tens of thousands of drivers are likely to want answered before autumn moves greyly into winter and frost, snow and rain threaten further to deteriorate road surfaces, and, inevitably, road accidents and casualties increase.

DRIVE's inquiry into the state of the nation's roads—backed by the results of an ongoing AA study of urban, suburban and country-traffic routes that estimates 250,000 potholes or similar faults, nationwide—also won support from the County Surveyors Society and road-safety agencies, enjoyed widespread press, radio and TV coverage and was debated in the House of Commons.

But, while the politicians now juggle with figures and argue about grants and expenditure, Britain's drivers wait, like Paul Bryant, to hear what actually is going to be *done* to ensure that Britain is not, in fact, moving towards the end of the road...

Fixed charges

The idea of an extended warranty—insurance against your car breaking down—is attractive, but the business that has grown up over the last few years is a jungle that's only now being civilised, as Roland Weisz explains on page 32.

A recent newcomer is AA Motorsure, offered by AA Insurance Services to both AA members and non-members alike. Unlike the majority of schemes, it is a simple insurance policy between the motorist and the New Hampshire Insurance Company.

'We looked at all the other schemes,' says AAIS's George Spragg, 'and, frankly, many left a lot to be desired.'

AA Motorsure offers separate policies covering saloon and estate cars (private and personal business use), and light vans up to 17cwt if used privately.

New-car insurance—for vehicles less than a month old and under 1000 miles. The policy covers a two-year period, starting when the manufacturer's warranty expires, and it doesn't matter whether the original warranty expires on a date or mileage limit. The cost is £49.50, or £59.50 for commercial travellers' vehicles; there's also a £10 excess on each claim.

Used-car insurance 1—for cars up

to five years and 50,000 miles. Cover is for two years, less the first 30 days or the period of the dealer's warranty, whichever is the longer. To safeguard both the motorist and the insurer, the vehicle must be given a clean bill of health by the AA. The existing AA vehicle-inspection scheme will be taken as proof of insurability; in addition, there's a new inspection scheme arranged by AAIS at a reduced cost of £12 for members, £15 for non-members. The cost of the policy is the same as new-car insurance.

Used-car insurance 2—for cars less than two years old. No inspection is necessary for this scheme, but the policy does not cover the first three months of the warranty period. Cost is £59.50; excess £25.

Added bonuses of AA Motorsure policies include a highly flexible maintenance and repair clause: any competent garage can service the vehicle—or even a competent DIY man; the only requirement is that the vehicle be serviced according to its manufacturer's requirements. AAIS needs



to be consulted before major repairs are carried out, though there's no insistence on any particular garage for repairs. AA members also get Continental cover for 31 days in any 12-month period.

Spragg stresses that Motorsure is a breakdown insurance. 'We can't insure against alternator brushes wearing out through long use, for instance—though, of course, we pay up if the alternator breaks.'

Motorsure covers repair claims based on a sliding scale, depending on vehicle mileage at the time of failure—up to £350 per breakdown on a new car, to £140 per claim maximum on cars with 60,000 miles on the clock. And the scheme doesn't specify the ratio of parts to labour—a subtle get-out used by some companies that demand a very low labour content in the claim total.

Good companion

The advertisement that L-driver Miss Olwen Evans put in her local Swansea paper was, to say the least, unusual: she wanted to hear

Wheels within...

IT'S ALWAYS nice to do something different. And with this issue, after 11 years of DRIVE, and a lot of moans and groans from neglected two-wheel fans, we seek to spread a little happiness with the introduction of motorcycle test-reports—see page 22.

We start small, with machines that would suit novice-riders or short-distance commuters looking to save on car expenses; and we employ the instant-expertise of veteran bike-journalist David Minton, who has tested our two-wheelers both on the road and on the test-track.

We'll be waiting for your letters, telling us how you feel about the bike tests, just as in the past you have left us in no doubt that, while you look to DRIVE for entertainment, you also demand hard information and, above all, reliable advice.

In this issue, we aim to satisfy those demands with our cover-story on car polishes (see page 38), a report on extended-warranty schemes (page 32), and a disturbing look at the increase in hit-and-run road accidents (page 6).

On the hardware front, our car

tests move firmly into the family circle, pages 12–17 and 48–53; we cast a glance towards winter with an unusual Special Offer, page 47; and bring you motoring's latest (and best!) financial news with the current Index of Motoring Costs, page 5.

Changing the subject just a little, it's good, too, to be able to tell you that DRIVE's new sister-title—the camping, caravanning, outdoor-life magazine TRAIL, launched in March—is selling like hot cakes.

Like DRIVE, TRAIL is winning popularity because *it's so very different* to all the rest: a no-nonsense guide to the leisure scene that combines common-sensical tests of tents, touring caravans and motor-vans and colourful, detailed campsite reports with consumer-orientated investigative features and A Real Breath of Fresh Air.

Get sight of TRAIL. Better still, get sight of page 21, and take out a money-saver's subscription to TRAIL or DRIVE. Or both!

— the Editor

from 'experienced drivers with time on their hands' to accompany her in her Fiat 500 once a week. To her surprise, more than two dozen replies came back.

As a schools inspector, Olwen needed transport every day, but, having twice failed her driving test, had decided that she required regular practice before having another shot at it. 'So I thought up a very economic solution: pay an experienced motorist to drive around with me,' she says.

Her first problem was to sift through the replies for a genuine applicant: 'I had some outrageous letters. One chap demanded £6 a day; another offered services free. I had to be careful: an ugly rumour could be as harmful to my career as an accident!'

Eventually she picked James Thomas, a 64-year-old ex-army mechanic, now retired and with time on his hands. 'He ambled in one grey evening and talked car mechanics until I felt educationally subnormal,' says Olwen. 'When I mentioned fees, he grew indignant and refused to be associated with such a thing.'

As a result, James Thomas has joined the ranks of DRIVE's Caring Motorists. He is the fourth to win the coveted accolade, following a nationwide search last year during which scores of readers sent in tales of favourite motorists.

When she passed her test, the good news was tinged with sadness. Because for James Thomas it meant the end of what he describes as a very enjoyable period in his life. 'Since I retired, two years ago, I've missed being on the road and dealing with cars,'

he says. 'I am delighted that I gave Miss Evans enough confidence to help her pass her test.'

Although he refused to let Olwen pay him, Caring Motorist James



Thomas will get a reward—10 years' free membership of the AA. Miss Evans can choose £10-worth of goods from the current AA mail order catalogue as her prize.

Power struggle

A recent one-day conference on energy posed two major questions: what will be the best forms of future power; and what action should be taken, now, to ensure a smooth transfer to the new source—involving, as it will, major changes to our lifestyle?

The conference, arranged by the British Institute of Management, heard that although Britain, unlike most industrial countries, is well-placed for energy self-sufficiency in the short- and medium-term future, the country will not be insulated from long-term world energy supply problems that are expected towards the end of the century.

Chaired by Sir Ronald McIntosh, former director-general of the National Economic Development Office, the conference enabled industry, commerce and local government leaders to

debate the many crucial issues connected with the future supply and demand of energy with those responsible for formulating a national energy policy. Speakers included Sir Jack Rampton, permanent under-secretary at the Department of Energy; Sir Denis Rooke, British Gas Corporation chairman; Sir Derek Ezra, National Coal Board chairman; Sir Francis Tombs, Electricity Council chairman; Mr O F Lambert, director general of the Automobile Association; and Michael Shanks, chairman, National Consumer Council.

Meanwhile, the search for energy-saving processes continues, with a coal-car making its maiden trip last November. The results were promising—it gave petrol-like performance—and the government is backing development of the coal-refining process.

Western Starlet

Toyota's new Starlet is further evidence of Japanese anxiety to pander to European taste in small-car design. A typical supermini, it is just a shade over 12ft long, with a 1litre engine, restrained styling and respectable accommodation for a live-axle, rear-wheel-drive design.

The GL versions on sale in Britain are offered in three- or five-door form (still unusual in this class), and are very fully equipped and trimmed. The price matches the specification at £2721 for the cheaper three-door.

In a brief, pre-launch road-impression, DRIVE found the Starlet one of the most pleasing and impressive Toyotas it has

wheels and aero-dynamic aids. A far cry from the Beetle...

Could there be more trouble in store for Chrysler in the shape of its French-built Horizon? The American version has become the first car ever to be rated 'unacceptable' in 10 years of testing by the influential *Consumer Reports* magazine.

The Horizons that CR tried did not straighten-up when the driver released the wheel after an abrupt change of direction. Most cars return to the straight and narrow, but not so the Chrysler newcomer it seems, which instead veered from side to side.

Chrysler has replied by calling the test 'abusive' and 'grossly unfair', pointing out that a real driver wouldn't do such a thing.

Ever heard of the Horch, the German luxury car of the between-the-wars period that rivalled Mercedes-Benz? Well, Volkswagen now owns the name and is rumoured to be resurrecting it on a new 'flagship' model-line to take the group's Audi-derived range up into competition with BMW and Mercedes.

encountered—more so than the Carina tested on page 48...

Its ride is rather flurried over poorer surfaces, and a combination of high overall gearing with modest power (17.1mph per 1000rpm/47bhp) means plenty of gear changing to keep up the pace. However, it is impressively quiet and refined.

Roads information

Numbers in parentheses refer to maps in the 1978-1979 AA *Members' Handbook*.

BRITAIN

Motorways open M66, Bury E bypass (north section), 5½ miles (33).

Major roads open A149, Caister bypass, 2½ miles (29); A30, Cheriton Bishop-Whiddon Down, 5½ miles (6); A64, Tadcaster bypass 3½ miles (34).

OVERSEAS

Denmark/Germany Motorway E3, 35km, from Flensburg to Abenrød open (toll free).

France Mont Blanc Tunnel toll up approximately 20%.

Motorway tolls up by about 6%.

Autoroute B9 open between Narbonne and Perpignan (49km). Tolls—Narbonne to Spanish frontier—are: cars, 16F; car and caravan 24F.

Autoroute A11 extended by 40km from La Ferté Bernard to Le Mans. Tolls, Paris to Le Mans are: cars 33F; car and caravan 55F.

Autoroute A36, Séchin-Besançon W (35km) open. Tolls not available.

Autoroute A63 Biarritz-Bayonne extended 5km. Tolls from Bayonne to Spanish border 10F (8F, 16 September-14 June).

Italy Autostrada A26, Alessandria-Casale Monferrato (27km) open. Tolls not available.

Spain Final section of the Barcelona-Valencia Autopista A7 open between Torrelblanca and Castellón de la Plana (35km). New tolls: Tarragona-Puzol (Valencia)—car 540P; car and caravan 1040P; Silla-Gandia—car 140P; car and caravan 240P; Altea-Alicante—car 125P; car, caravan 220P.

Yugoslavia New road numbers in Slovenia and Macedonia; in other republics, old numbers likely to remain in use for 1978-1979.

Second Handbook...

The AA asks members to note the following amendments to the 1978-1979 *Handbook*:

Page 94 Appleby Manor Hotel is fully licensed; page 108 The telephone number of the Lion should read Huntingdon 810313; page 113 Waterford Lodge Hotel should have two stars; page 119 Foresters Arms is not a member of Interchange Hotels; page 123 Farnborough, Kent, should read Farnborough, Hants—Map 9 SU85 (delete mileages); page 125 Stirk House Hotel should have three stars; page 137 Leeds Mercury Motor Inn telephone number should read 866556; page 181 Paddington House telephone number should read Padgate 816767; page 182 Heath Lodge Motel telephone number should read Welwyn 5101; page 194 Ormescliffe has 21 rooms with bath/shower; map, page 16, square SO20—Pontypridd should read Pontypool; map, page 33, square SD81—Rochdale has been omitted (at junction A680/A671/A58); map, page 45—Middlesbrough-Scheveningen shipping service has ceased to operate.



WORLD-WIDE

Bug money

ANY TIME now, the French government is expected to take over the fabulous Schlumpf Museum in Mulhouse, France—the secret collection of nearly 500 historic cars built up by two textile-magnate brothers, now bankrupt.

Since the brothers Schlumpf fled to Switzerland a year ago, the museum—one of their firm's prime remaining assets—has been run (haphazardly) by their ex-employees. But, with the government preparing to move in and put the showpiece-collection on a firmer footing, there are worries for other, smaller collectors who own Bugattis.

The brothers had more than 200

Bugattis in the museum, and the government is expected to sell off quite a few of the duplicates. The effect on existing Bugatti values could be similar to the impact on the stamp world of 100 or so new-found Penny Blacks.

Small may be beautiful, but it isn't necessarily cheap. One American source calculates that Detroit is spending more than £40,000 million between now and 1985, re-tooling and re-equipping to make the smaller cars that the economic climate demands—enough to fund the Apollo space programme three times over.

Believed to be on the way is a Citroen Ami replacement. At 12ft 6in, it will be short even by Mini standards. The new French friend will have a lot of Peugeot bits and pieces (Citroen now being owned by Peugeot), though the faithful—if rough—air-cooled 650cc flat-twin Citroen engine and front-wheel drive, will be retained.

Provisionally planned for next year is a super-quick version of Volkswagen's Scirocco coupé, with turbocharged engine, wide



INDEX

Points in favour

LAST ISSUE, the Cost of Motoring Index showed that the seemingly inexorable upward trend in motoring expenditure had at last levelled out. Now the Index actually records a sizeable drop in how much owners have been spending on their cars—the first cut in costs since the Index was launched, in the autumn of 1973.

In the July–August table, covering the 12 months March 1977–February 1978, the overall Index (based on 100 points in October 1973) held at 192; but now, with returns for March and April in, the Index drops two points.

While annual costs have fallen by £7.64 to £576.57, the average mileage covered over the year by each of the 12,000 motorists in DRIVE's sample has remained virtually the same. So how has this reversal of all known trends and expectations come about?

Says Peter Mouncey, head of AA market research: 'Apart from petrol expenditure, down by just over £5, the latest figures also show a £2 drop in servicing and repair costs. It doesn't mean, of course, that it now costs less to have your car serviced; but less has certainly been spent on servicing and repairs.'

The black side of that news, however, is the implication that more and more motorists are neglecting to have their cars serviced regularly by a garage. 'But, on the latest estimates, half of the motorists now do at least part of their own maintenance, and nearly a third claim to do most of it themselves,' says AA technical services manager Les Sims. 'And there is nothing wrong in that, provided they use a garage for checking and adjusting the safety areas of the car, such as brakes, and take the car in for a comprehensive check at least once a year.'

Certainly, until petrol costs rose by £2.38 during April, motorists' expenditure on petrol had fallen steadily since last July, particularly during the winter months.

The cheapest car to run is still the Ford Escort 1300, though its per-mile cost is up 0.2p to 4.4p. The Datsun Cherry/Sunny and Ford Cortina 1300 have also kept below the 5p-a-mile barrier, coming equal second at 4.89p.

MOTORING COSTS: May 1977–April 1978

INDEX Oct 1973 = 100	102	186	205	127	185	107	150	199	190
MONTH-BY-MONTH ANALYSES (all cars) AND ENGINE RATING ANALYSES (post-1968 cars)			Petrol	Oil	Servicing repairs	Accessories	Insurance	Other costs	TOTAL
May 1977	677	7.39	24.67	1.70	13.40	0.65	2.93	6.67	50.02
June 1977	757	6.89	26.28	0.95	12.78	1.84	3.08	7.21	52.13
July 1977	847	6.65	27.01	1.11	15.33	1.18	3.07	8.66	56.34
August 1977	867	5.79	26.23	0.81	11.01	1.71	3.02	7.39	50.19
September 1977	823	5.75	24.39	0.70	10.86	0.15	4.09	7.13	41.32
October 1977	738	6.60	24.10	1.63	11.08	0.44	3.97	7.49	48.70
November 1977	778	6.04	24.26	1.13	9.04	0.32	4.06	8.17	46.98
December 1977	719	5.72	22.60	0.65	6.64	0.18	4.11	6.92	41.11
January 1978	616	7.17	21.07	0.64	11.23	0.61	3.99	6.63	44.16
February 1978	738	6.17	21.26	0.85	11.80	0.81	4.24	6.59	45.55
March 1978	674	6.69	21.47	0.70	11.33	0.76	4.22	6.59	45.08
April 1978	757	6.47	23.85	0.93	10.86	0.40	4.17	8.78	48.99
TOTAL (for year)	749	6.41	287.19	11.80	135.36	9.05	44.95	88.23	576.57
-900cc	567	6.93	14.69	0.57	13.86	1.39	3.57	5.23	39.30
901-1100cc	711	5.85	19.64	0.62	10.57	0.67	3.68	6.42	41.60
1101-1300cc	770	5.93	22.91	0.76	10.45	0.59	3.84	7.10	45.65
1301-1500cc	735	6.36	24.37	0.70	9.58	0.17	3.99	7.93	46.75
1501-1700cc	995	5.94	33.03	0.76	11.57	1.93	4.34	7.48	59.11
1701cc +	976	6.66	34.18	1.10	15.26	0.73	4.95	8.77	64.99
MODEL-BY-MODEL ANALYSES—post-1968 cars									
Chrysler Imp	546	10.66	15.87	0.86	32.70	0.00	3.28	5.47	58.17
Avenger	728	6.63	25.78	1.06	7.46	2.14	3.61	8.22	48.28
Hunter 1500/1750	760	6.50	26.02	0.94	6.62	0.09	4.16	11.62	49.44
Datsun Cherry/Sunny	856	4.89	20.73	0.45	10.40	0.08	4.40	5.82	41.89
Fiat 128/124	727	7.21	23.80	0.61	15.95	0.00	4.49	7.56	52.42
Fiat 500/127	461	6.39	12.73	0.07	6.59	0.00	3.88	6.19	29.45
Ford Escort 1100/Popular	821	5.75	25.65	0.54	10.15	0.61	3.71	6.56	47.22
Escort 1300	988	4.40	26.40	0.33	5.88	0.48	4.10	6.33	43.53
Cortina 1300	978	4.89	30.57	0.31	6.20	0.00	3.79	6.96	47.85
Cortina 1600	1061	5.73	35.97	0.89	10.39	1.16	3.95	8.41	60.76
Cortina 2000	1079	5.42	37.84	0.77	7.74	0.32	4.99	6.76	58.41
Capri 1600	981	6.71	33.14	0.91	14.39	4.18	4.96	8.25	65.83
Granada/Consul	1228	7.92	48.19	2.55	33.36	0.00	5.44	7.68	97.22
Leyland Mini	622	6.02	15.49	0.71	9.71	1.66	3.66	6.23	37.47
1100/1300	518	7.19	17.60	0.93	8.76	0.51	3.29	6.18	37.27
Allegro	785	5.25	23.27	2.45	4.38	0.19	3.91	7.02	41.21
Maxi 1500/1750	870	5.83	26.64	0.70	11.83	0.07	3.98	7.48	50.71
Marina 1300	849	6.68	26.15	0.80	14.55	3.02	3.42	8.77	56.71
Marina 1800	872	5.29	28.77	1.92	8.79	0.84	4.25	10.30	54.87
Princess 1800/2200	731	7.23	28.79	1.50	12.39	0.04	4.07	6.07	52.86
Rover 2000/3500	984	6.96	35.52	0.50	18.70	0.00	5.00	8.71	68.49
Triumph Toledo/Dolomite	761	6.03	22.81	0.61	10.54	1.05	4.27	6.66	45.93
Triumph 2000/PI	791	6.62	30.60	0.67	7.62	1.49	4.98	6.97	52.35
Simca 1000/1100	615	7.25	21.63	0.19	12.66	0.23	3.67	6.24	44.61
Vauxhall Viva	712	5.88	21.59	0.79	8.20	0.53	3.61	7.11	41.83
Victor 1800/2300	710	10.20	35.00	1.89	24.13	0.00	3.88	7.56	72.47
VW Beetle	664	6.44	20.25	0.40	11.80	0.37	3.45	6.47	42.73
All Chrysler UK	754	6.63	24.60	0.94	10.97	1.08	3.82	8.54	49.94
Ford	998	5.66	32.49	0.78	10.71	0.99	4.22	7.28	56.47
Leyland	766	6.37	24.27	0.97	10.97	1.02	4.03	7.50	48.76
Vauxhall	769	6.27	24.87	0.93	11.28	0.42	3.75	6.99	48.24
All British	840	6.15	26.79	0.90	11.60	0.92	4.03	7.42	51.66
All Fiat	657	7.16	21.34	0.31	13.17	0.42	4.51	7.30	47.05
Renault	748	5.98	21.29	0.29	10.36	1.19	4.11	7.48	44.72
Simca	650	8.05	23.41	0.32	18.24	0.15	3.83	6.37	52.31
Volvo	1049	6.18	38.13	0.82	7.76	5.26	5.64	7.15	64.76
All French	774	6.31	23.24	0.34	12.17	0.67	4.21	8.22	48.84
Italian	703	6.84	22.84	0.42	12.15	0.36	4.68	7.64	48.09
Japanese	865	5.08	24.68	0.46	7.14	0.24	4.68	6.71	43.90
W German	818	7.12	27.11	0.60	18.32	0.31	4.72	7.15	58.22
All Foreign	793	6.38	24.70	0.51	12.83	0.59	4.53	7.43	50.60

Average monthly costs (£) excluding depreciation

Cost per mile (pence)

Average monthly mileage



INSURANCE

What Katy does next

KATE WARREN was married at the age of 21 and passed her driving test the same year. A named driver on her husband's motor policy, she'd had 10 years' accident-free motoring. But, sadly, Kate's marriage was not as happy as her driving record, and, when her marriage ended in the divorce court, she went back to work as a secretary in London.

Despite the Tube, taxis and buses, she quickly missed the independence of a car. The answer, she thought, would be a secondhand Ford Escort 1100—not too expensive at about £1000, and far cheaper to insure than her ex-husband's last car, a Rover 2200.

Having bought the Escort, Kate was pleased that she had £80 left for the premium. But when the insurance bill arrived it came to more than £230, simply because the insurance company was not prepared to acknowledge her 10 years of driving and reflect it with a substantial no-claims discount.

Kate was furious, and let the company know it. But the bill remained unaltered.

'Clearly, Kate didn't appreciate that it's only a policyholder who can build up a no-claims discount,' says AA motor insurance manager Mike Saunders. 'A named driver on someone else's policy—Kate, on her husband's—earns nothing, even though there may be 10 years of claim-free motoring. One premium, one discount: that's the simple rule.'

'But remember, Kate had already enjoyed 10 years' cheap motor insurance as a named driver. And *that* was her reward—and, incidentally, her husband's—for her claim-free driving record. She can't, in all honesty, expect to have it all over again...'

The situation, Saunders goes on, can be somewhat different when a once-named driver becomes the main driver and, in effect, takes over the policy—when, for example a policyholder-husband becomes too ill to drive and his wife takes over. Then, provided the insurer knows that the wife has contributed to the policyholder's good driving record, it will usually be sympathetic and allow a NCD, for there is still only one policy, and the risk is probably unchanged.

But, at the end of the day, Saunders has a scrap of good news for Kate Warren: 'Although she has not until now had a policy in her own name, her record may qualify her for an introductory discount. And some insurers will allow up to 25%.'

IT WAS midnight on a Saturday in September. Regina Hughes, a 30-year-old mother of four, had spent a happy couple of hours with friends in the Last Inn, Oswestry, Shropshire. They were walking home together along a country road in sensible single file, to give passing traffic plenty of room. But for one car there was not room enough.

Mrs Hughes probably never saw it. It struck her, throwing her in the air. She died instantly from a fractured skull. The car vanished into the darkness.

Police set up road-blocks. They warned garages to look for damaged cars. As time passed, they and officers from several neighbouring forces interviewed hundreds in the hope of finding the driver. But when, two months later, the inquest recorded a verdict of manslaughter, his—or her—identity remained unknown, and has never been discovered.

Like thousands of similar cases, this tragic episode highlights a disturbing pattern that links drink-drive penalties and the hit-and-run menace. Note again the time and the day: minutes to midnight on a Saturday. Not long after the pubs had closed.

Did that driver desert the scene in panic, lacking the courage to bear responsibility for the accident? Or was it a more calculated act? Was he—or she—over the breath-test limit, and making a straight choice between the heavy penalties for drink-driving and the risk of a comparatively light fine for failing to stop after an accident...?

At present, the maximum penalty for a driver who fails to stop after an accident is a fine of £100. A court may also suspend his licence, but seldom does. For being drunk in charge of a car, the maximum penalty is £1000 and six months' imprisonment. A year's licence-suspension is mandatory for drink-drivers.

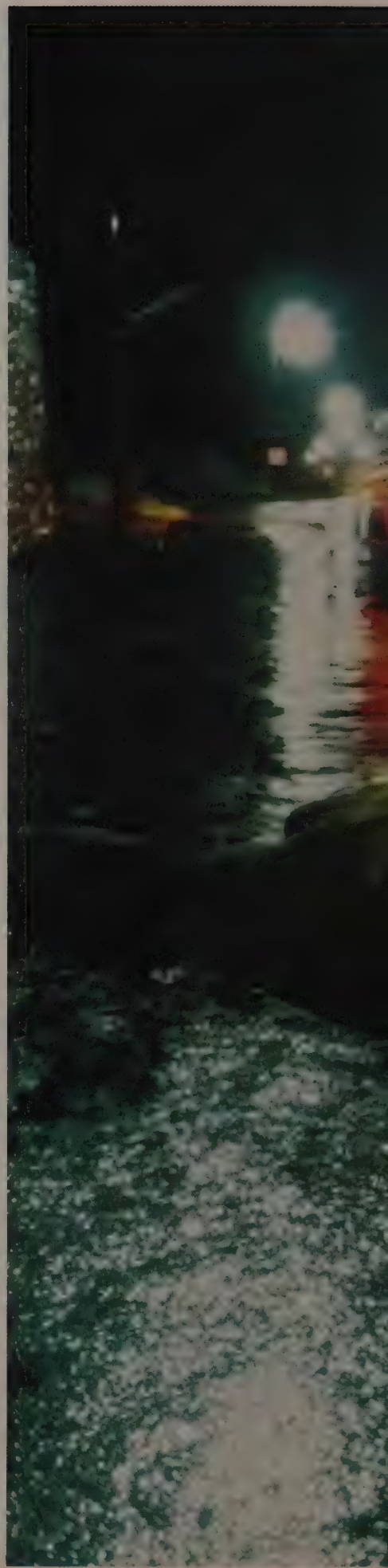
Ch Insp Terence McCabe, of Greater Manchester Police, believes that an increasing number of motorists are making the second choice. And he bases his conclusions on the results of a survey of two years' accidents in his area.

During 1976 and 1977, hit-and-run accidents in Greater Manchester increased not only in numbers but also in proportion to other road accidents. In 1976, 20,299 accidents were reported to the police, of which 3803 involved drivers failing to stop—just over 18½%. In 1977, the figure rose to 4289—more than one in five of the 20,648 accident total.

When Ch Insp McCabe analysed the day and time that hit-and-run accidents occurred, the connection between drink and such accidents seemed inescapable. Fridays and Saturdays—the beginning of weekend euphoria—were the worst days of the week.

In 1976, Fridays accounted for 16.3% of the total number of hit-and-run accidents, and Saturdays 17.3%. By 1977, the Friday figure had risen to 17.9%, and Saturday's remained steady at 17.3%.

Most hit-and-runs took place between 11 pm and midnight on these days. In 1976,





Saturday night fever

this period of time topped the list with 12.7% on Fridays and 14.4% on Saturdays; the heavy-traffic, weekday-evening rush-hour clocked only 10.6%. The following year, the 11pm to midnight figure on Fridays jumped to 15.2%, and Saturday's to 12.6%, while the rush-hour figure was down to 8.8%.

'Significantly,' says McCabe, 'the 10pm-2am period accounted for around 25% of all failing-to-stop accidents in 1976—and 28.2% in 1977. And these are the hours when traffic is generally at its lightest.

'It's clear from our investigations that accidents of this type occur more frequently at the end of morning and evening licensing hours than at any other time. What is particularly disturbing is that these two periods combined account for nearly half of all hit-and-run accidents. This must be strong circumstantial evidence of a link between drink-driving and hit-and-run accidents.'

Unfortunately, 'circumstantial evidence' is rarely grounds enough for making a conviction in a hit-and-run case, and the very nature of the offence makes it hard to find a driver in time to prove a drink-drive charge. But, just occasionally, a driver, unable to bear the guilt, gives himself up...

This was how police were able to get a conviction after a particularly horrific hit-and-run accident in Surrey. The time: 11.50pm. The date: 13 January 1976.

Two middle-aged couples had spent an evening playing bingo and were walking home. A car mounted the pavement. The women saw their husbands swept on to its bonnet. It swerved back into the road, throwing one of the men free and leaving him dying or already dead. But the other man's clothes were caught in the car. He was dragged underneath it for 400yd before his body fell. The car drove on.

Two days later, the driver gave himself up. When police checked, they found that he had been drinking. He was found guilty of causing death by dangerous driving, and of driving while unfit through drink. For that he was sentenced to six months' imprisonment and had his licence suspended for five years.

No less shocking was the 1977 case of a woman in the Greater Manchester area who suffered severe facial injuries when she was dragged for yards by a car that failed to stop. A witness gave police the car number, and that evening they found its owner. But he denied being the driver, insisting that it had been stolen.

While talking to their suspect, the police received word from surgeons that the woman could be saved months of painful plastic surgery if body tissue could be found beneath the car and rushed to them. They told the suspect, and begged him to tell them where the car was. Still he denied any knowledge of it. The following day, they found it, but it was too late to help the surgeons.

The driver was found guilty of causing grievous bodily harm with intent, with dangerous driving, failing to stop at the

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scene, failing to report the accident—and refusing to take a breath-test. He was sent to prison for 12 months and had his licence suspended for three years.

The victim of another callous hit-and-run driver was a 16-year-old apprentice butcher who was left by the roadside after being knocked down while walking home from a disco in Essex.

The time: 12.45am. The date: Sunday 25 September 1977. He was passing the forecourt of a garage when a car swerved off the road, struck him, swerved back on to the road and disappeared. He was killed instantly.

After two days' intensive investigation, police arrested a driver. A check on his activities that fateful night provided enough evidence for them to charge him with being drunk in charge of the car as well as with failing to stop and failing to report the accident. He was fined £290 and had his licence suspended for 18 months...

And as recently as June this year, another appalling hit-and-run case culminated in a 33-year-old computer manager being jailed for 12 months, after pleading guilty to driving with excess alcohol in his blood. He had claimed he didn't know that he'd knocked down a couple, but police found the girl's severed arm in the car he had abandoned a mile down the road...

The drivers in these cases may not have made a conscious decision to leave the scene because they feared that a drink-drive prosecution would add to their problems. But the temptation is there for the drink-driver.

As Ch Insp McCabe says: 'At present, drink-drivers have something to gain by leaving the scene. *They should have nothing to gain.*'

Concern is not confined to Greater Manchester. Paul Rose, MP for Manchester Blackley, recently asked in the House of Commons if there had been a significant national or regional rise in the number of drivers failing to stop over the past five years, and what proportion of them was discovered and prosecuted?

Although Dr Shirley Summerskill, under-secretary of state at the Home Office, did not quote from it in her parliamentary reply, the figures are published by the Home Office in the latest *Offences Relating to Motor Vehicles*... and they bear out Ch Insp McCabe's findings:

In 1971, 12,213 drivers in England and Wales were convicted of failing to stop. And since then, the total has risen steadily, reaching 18,453 by 1976, the latest year for which statistics are available.

Hit-and-run accidents are now being included for the first time in the Stats 19A form that police forces complete to provide information about accidents involving injury. Their inclusion underlines the high priority that is being given to the problem, and a Department of Transport spokesman tells DRIVE: 'A revised form has been under consideration for some years. There are many aspects of the accident field that could have been

WHY I DROVE ON

A national newspaperman who admits to having a drink problem knocked a boy off his bicycle one night in a country lane and drove on... for fear of being breath-tested. Although never caught, that one night has changed his life.

He says: 'There's no means of knowing whether I'd have hit that bike had I been sober. He hadn't any lights, not even a reflector, and it was a dark lane with high hedges. I came round a bend and he was only about five yards ahead of me when finally I spotted him.'

'With better reflexes—okay, I just might have missed him. If I'd hit him and been sober, no one would ever have blamed me. As I was over the limit, I had no chance. I'd have been guilty.'

'The force of the collision threw him into a ditch, and I knew he was hurt; I have children of my own, about his age, so I felt awful. But I told myself that the important thing to do was to get professional help. It was a lonely lane, and it could have been ages before I could flag down another car.'

'So I stopped at the first phone box and dialled 999. Even then I might have gone back and waited for the ambulance; but the voice at the other end of the line kept asking me my name. I think they could sense that I was the man involved. So I drove on.'

'The story was in the local paper. He'd a broken leg, and was as well as could be expected. I drew out £100, all the money I had in the bank, and sent it to him anonymously to buy a new bike—hopefully with lights. Then I sold my car.'

'I've never driven again, and never wanted to do so. You see, it wasn't the fear of losing my licence that made me drive on. It was the knowledge that I'd automatically be found guilty of an accident that really wasn't altogether my fault... and be branded as some kind of monster by public opinion.'

included, but hit-and-run was chosen. Only 10 police forces are using it this year, but a further 20 are introducing it next January and we should be able to draw a fuller picture from the returns by 1980.'

Another way to assess the size of the problem is to look at motor insurance statistics. The Motor Insurers Bureau was set up in 1946 to provide compensation for, among others, victims of accidents in which uninsured or untraced hit-and-run drivers were involved. (All motor insurers must be members, and pay a levy in proportion to their premium income.)

'Our central fund was intended to seal cracks in the Road Traffic Act,' says Peter Morgan, the bureau's secretary. 'Breaches of statutory regulations were expected, of course, but at that time they presented no real problem, and few in the insurance business expected a heavy burden on the bureau. In our first 18 months, indeed, we had only 136 hit-and-run cases, and paid out only £6000. Last year we had more claims than ever before—1387—and paid out £1½ million...'

'Drink seems to be a factor, with the threat of the breath-test encouraging drivers not to stop. The law isn't working.'

Geoffrey Norman, secretary of the Magistrates Association, agrees. 'Over three years ago, my predecessor, Joseph

Brayshaw, told DRIVE that the association had done its utmost to persuade government that failing to stop after an accident which endangered life or limb should be an imprisonable offence,' he says. 'And it was, remember, until the Road Traffic Act of 1974. But the Home Office would not restore the penalty.'

'I believe that what Joseph Brayshaw said then remains true today: failure-to-stop is a very serious offence, and the right to imprison should be available to the courts to be used in serious cases.'

Surprisingly, perhaps, the Association of Chief Police Officers does not support this view, despite the fact that a survey by its traffic committee from 1 October 1973, to 30 September 1974 indicated that, to some extent, failure-to-stop was even then influenced by drink-drive laws.

Brian Morrissey, ACPO general secretary, explains: 'Evidence to that effect was included in the association's submission to the Blennerhassett Committee [on drink-driving; it reported in 1976]. But our more-recent researches have emphasised the difficulties in collating sufficient firm evidence to press either for legislation to be amended or to warrant a national publicity campaign. There are areas where the problem is severe, but we don't regard it as a national problem.'

Meanwhile, local publicity campaigns are getting results. Ch Insp Stuart Bennett, of Surrey Police, tells DRIVE: 'We run a continuing campaign with the co-operation

of local newspapers. We have a weekly press conference, and they publish details of all local hit-and-run accidents, appealing for information.'

'This brings a good response: we often get anonymous phone calls from people who have seen something, but don't want to get involved. We have a special squad that concentrates on failure-to-stop cases, and our detection rate is now 60%.'

Many police officers deplore the vast number of man hours that this type of offence absorbs. One officer says: 'We have to treat hit-and-run deaths like murder cases. Investigations can last weeks.' Sometimes, as in the case of Mrs Regina Hughes, enquiries continue for months, and may never be abandoned. Other times, police may make an arrest within hours.

It took Sussex police a week to find the hit-and-run killer of a 17-year-old student. The time: midnight. The date: Saturday 22 January 1977.

The girl had just kissed her 19-year-old boyfriend goodnight, only 30 yards from her home, after they had been to a disco. As he rode off on his motorcycle, he heard a crash. He turned, and in the beam of his headlamp he saw her body.

After seven days' intensive search, police charged a man with dangerous driving, driving without due care and attention, failing to stop after an accident, failing to report it, and driving while unfit through drink. He was due to be tried at Lewes

Crown Court in September last year... but did not answer to his bail and, so far, police have not traced him.

Though, inevitably, many guilty people are bound to avoid detection, police enquiries occasionally are hampered even more when a victim cannot be identified. Despite the help of Interpol, the body of a slender blonde in her late teens, found on the A1 north of Baldock, Hertfordshire, more than three years ago, has never been identified.

Police say the girl, who could be French, was knocked down by a car, and probably run over by other vehicles. The local council arranged her funeral. Nobody close to her was there simply because nobody close to her knew about it. Yet she is not forgotten. Once a fortnight, Marion Maycock, of Canterbury Way, Stevenage, puts flowers on her grave. A wooden cross stands over it with the simple legend: *Sadly your life was short, but you will be remembered.*

Says Mrs Maycock: 'I've a daughter living in New Zealand. She used to hitch-hike in Europe. A hit-and-run driver could have sent her to her grave, and I might never have known what happened...'

Somewhere in Britain there is a driver with that girl's death on his conscience. And there are thousands of others guilty of other deaths and still unpunished.

Would more of them have stopped had the penalty for failing to do so been more in line with that for drink-driving? ALAN BESTIC

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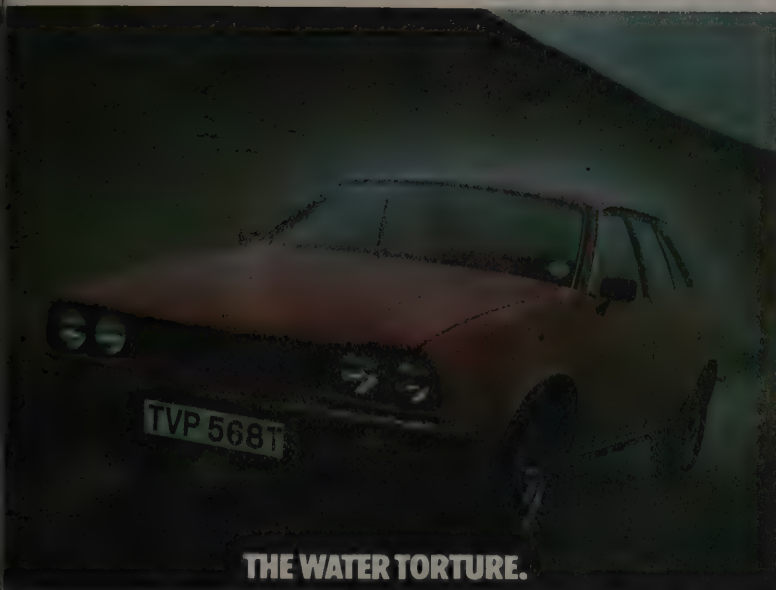
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Princess 1700L & HL manual	29.7	9.5	38.2	7.4	28.4	9.9
Princess 1700L & HL automatic	29.6	9.6	33.8	8.3	25.3	11.2
Princess 2000HL manual	27.2	10.4	37.7	7.5	27.7	10.2
Princess 2000HL automatic	27.8	10.2	32.1	8.8	23.6	12.0
Princess 2200HL & HLS manual	22.1	12.8	34.0	8.3	27.0	10.5
Princess 2200HL & HLS automatic	21.7	13.0	30.0	9.4	23.0	12.3

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
The water torture in Scotland. And ran it over the rack-like roads of Kenya.

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*All models except the 1700L.

CAR TESTS

The mid-sized family-saloon market *sounds* innocuous, but it's really the biggest jungle in the car business: the customers, be they ordinary fathers or fleet-car buyers, will show no mercy to the unworthy pride of a manufacturer's heart. Here, we herd Peugeot's new 305GR, Vauxhall's Cavalier 1300L and Chrysler's Avenger 1.3LS into the same pack to find out which are fit to survive into the eighties.

Peugeot 305GR

Price £3299 On the road £3399

BRIDGING THE BODY GAP

Car makers like to have you grow up with them. When you put away the Ford Escort of youth, for example, you can take up the Cortina of a man . . . before spreading into middle-age with a Granada. This is what marketing men call a 'nicely stepped range'. And this is what Peugeot has lacked for some years, with no medium-sized family saloon to bridge the chasm between the 304 and the cheapest 504.

Enter the 305, stretching the 304's body-size, and with a bigger-engine option. But the new model isn't as new as its publicists would have one believe, with the same old mechanical hardware under its modern body.

How it goes

'Same old mechanical hardware' is really rather unkind, for the original front-wheel-drive 204—transverse-engined and independently sprung all round—was a trendsetter in 1965. Two years ago, Peugeot revised the 1300 power unit, and, as is its modest habit, hardly bothered to mention the fact. Carried over into the 305, this revamped engine powered our test car.

With a kerbweight of more than 18cwt, the 1300 engine does well to achieve the kind of acceleration recorded. There is the option of a 1500cc version which *DRIVE* sampled at the same time, but the differences in performance are not tremendous—6mph on the top speed, a top-gear 30–50mph in 11.4sec, and 0–60mph through the gears in 14.1sec—savings of around 1½sec.

Where the 1300 version may surprise is in its refinement. Intrusive gear whine around 40mph may just have been a sample fault in the 1500, but its engine-induced body boom was both loud and long. The lower-gear and therefore harder-worked 1300 does drone a bit between 60–67mph, but it is subdued again at the all-important British motorway limit. It also has impeccable manners lower down, pulling amiably from the lower 20s—although there's not much bite to such acceleration.

Starting is always easy, and a



generous dose of half-choke for the first mile or so keeps temperament at bay.

The gear shift's precision will come as a revelation to anyone who suffered the original Peugeot 204 floor shift (a conversion that was done specially for the UK). Nowadays, there's little these Peugeots give away to the excellent gear changes of rivals such as Chrysler's Avenger—just a little baulking into first, sometimes. In fact, extreme lightness characterises both shift and pedals on the 305, making it an effortless car to drive in town use.

The 1300's fuel consumption is respectable at 33½mpg overall, and (true to the manufacturer's claim) we gained a slight improvement with the 1500—½mpg better. In normal mixed use, however, there's nothing in it. The 305 is an easy car to fill to the brim, and the gauge doesn't deceive, so driving to the last drop—well, the last gallon—is possible with practice, even though there's no low-level warning lamp.

The latest French cars sometimes reveal their designers' desire to make them handle and ride well—a tricky compromise to strike, for you can lose the baby with the bathwater. Peugeot puts its faith in stout anti-roll bars that prevent the 305 from tilting into corners like Peugeots of old, but lose something of the 204/304's unflappable nature over poor surfaces.

Our car's Uniroyal radials were not the best for dealing with sudden sharp bumps, and quite a lot of thudding got through to the interior. There's a 'squirmy restlessness' when well laden, characteristic of a heavily stabilised suspension.

That said, the 305's ride is still



Family pets

very acceptable, especially with modest weight aboard.

Cornering is definitely *nouveau Français*. The steering has 'medium' everything—weight, response and feel are all sensibly proportioned. With steady cornering manners and no nasty habits when pressed beyond its limits, the 305's handling is nothing if not reasonable.

Brakes—dual circuit, with a load-sensitive rear restrictor valve—are fine in everyday use and, unlike those on many French cars, silent. They fade, but not badly; water barely affects them. Servo assistance, however, is naïve: too much too soon makes delicate footwork necessary in an emergency.

Inside story

The 305 brings comfort to driver and passengers alike, but it takes time to come to terms with the driving position: you don't feel at home immediately. Headroom is

limited, especially with the optional sliding roof, and the seat backrest seems to offer too much support low down and not enough higher up—until you learn to lean back and relax. Drivers who like to sit forward, close to the wheel, may never feel at home.

The styling of the interior pleased all who saw it, but it's a pity that the centre door pillars aren't trimmed. The fascia is sensible, but there are a few grouses: a speedo that's more kph than mph; a lighting stalk that nestles too close to the dash.

Some minor push-buttons light up, making them easy to find at night, and the red-hued instrument lighting is a nice BMW-type touch, but there's no rheostat to dim its glow.

Rear seating is cosy, unless you are tall: the long-legged will find that the short cushion lacks adequate thigh support—a silly shortcoming, because legroom



is really quite good. The GR version doesn't have the 1500SR's wide, pull-down centre armrest to add to the sense of luxury, but everything else is there, including super door-pull armrests.

Peugeot has really redeemed past shortcomings and got the fittings and furnishings right. The flat floor is covered in well-fitted,

excellent-quality carpet, and there are courtesy switches and ashtrays on both rear doors.

The roomy boot also has a flat floor, with felt matting; there is night-time lighting from the tail-lamp housings, a perfectly good arrangement; and you don't have to unlock the boot every time—unlike some, Peugeot lets you

decide. The spare wheel is wound down by the wheelbrace from a cradle beneath the boot.

Most of the 305's interior shortcomings occur at head level. The limited headroom is aggravated by unconvincing safety padding, especially around the top screen rail and visor mounts, and the sunroof option is disappointingly draughty and causes buffeting even at low speeds when open.

Face-level ventilation is particularly effective. Heating is unusual in that more warmth flows under the seats than one has come to expect, but 'outside' feet at the front can be left in the cold. Even stranger, both test cars had clicking sounds from the fan when *not* in use . . . though it's pleasingly quiet in operation!

Living together

Depreciation on the Peugeot 304—the nearest equivalent with enough history for us to work out the figures—has been better of late than the domestic Chrysler Avenger, although models such as the Fiat 131, Ford Escort GL and Datsun 140J are even better.

An apt comment on 305 rust-prevention techniques is: 'It's not what you do but the way that you do it.' A superficial glance beneath a new car might not seem overwhelmingly reassuring—the pvc protection is not extended to the entire underbody, and a peep inside the doors reveals good painting but no wax injection. Yet Peugeot's painting and electrophoretic priming seems more thorough, and works better, than that of several other manufacturers using apparently similar techniques, and additional sealant, where used, is thorough.

There are no misses or mud-traps under the contoured wheel-arches, for instance, and virtually no chrome at all.

Sadly, we were less impressed by the underbonnet view. (Even before it's opened, there's the risk of yanking at a wiring loom instead of the adjacent release.) The beautiful, die-cast alloy block is impressive, but Peugeot's idea of 'reasonable accessibility'

Everyman Report

Three stand-ins for ailing Everyman Panellists brought a fresh viewpoint to DRIVE's test day. Teacher Sandra Spencer, 29, commutes around Basingstoke, Hampshire, in her Fiat 126. Geoff Antrum, a 25-year-old electronics engineer from Warrington, Cheshire, has never owned a car: he hires Austin Allegros for his business. Triumph Stag owner Roy Kidman, 55, an insurance broker from Weybridge, Surrey, is a member of the Institute of Advanced Motorists.

Sandra Spencer voted the 305 the most comfortable of the DRIVE trio: 'I felt happy from the off. The pedals and gears were just right.'

Roy Kidman enthused about the décor, 'but I didn't like the fascia layout—the instruments and switchgear were confusing.'

Geoff Antrum found the 305 'very smooth and quiet. It seemed a lot happier in top gear at low speeds than the other two.'

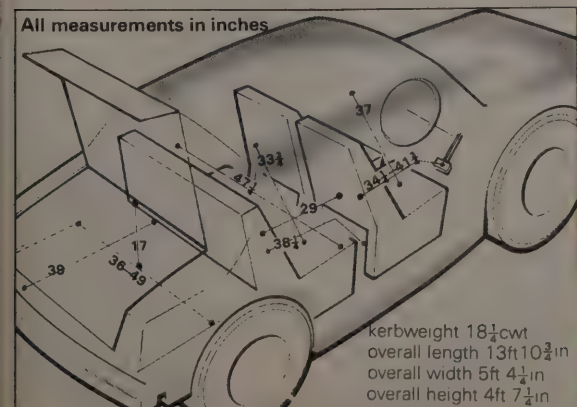
Everyman veteran Glenn Shipton, 22, an Essex sales rep, didn't like the 'sloppy' gear change: 'I wouldn't buy the 305: you can't even change the points yourself.'

falls well short of expectations. The incongruous, round-the-corner fanbelt arrangement is still used; and—horror of horrors—the distributor and coil are still buried beneath the brake servo on righthand-drive cars. The way to the sparkplugs is eased with a special spanner provided, and, once the air cleaner is off, other service items are not too tricky.

The handbook will be of little help to DIY mechanics. And some people may, like us, have mixed feelings about the elimination of the 304's grease nipples, roof-rack mounts and the change from hydraulic to cable clutch operation. But extended service intervals should keep costs down.

You may have read some terse comments about the 305 from the boy racers of the car-test scene, and much of what they say against the 1500 is probably valid; but this is partly because this dearer version is up against stiffer competition. The 1300 looks much more convincing in its own market, with as much performance and economy, comfort and room (inside, if not under-bonnet) as most, plus good finish.

Tearaways will fail totally to understand the quieter satisfactions of living with such an unassuming car. It may lack limpet-like cornering in the upper reaches of the rev counter, but you'll love it at the end of a wearing day. What's more, your passengers will love it, too.



Chrysler Avenger 1.3LS

Price £2535 On the road £2655



YOU'VE COME A LONG WAY, BABY, BUT . . . ?

Chrysler buyers have never had to worry about the range being changed overnight, leaving them with out-of-production cars: the maker's loyalty to its models has always been almost embarrassing. The Imp, now of not-so-blessed memory, was laid to rest even more often than the company itself by motoring pundits; the Hunter has soldiered on doggedly into a 13th year. In this company, the Avenger is but a lad.

Hardly innovatory at its 1970 birth, this great British hope for the last decade now pins its marketing faith on traditional, no-nonsense motoring, cheap parts and easy serviceability; but it has a tough battle in face of more sophisticated designs from both home and abroad.

How it goes

Despite a stiff manual choke, DRIVE's Avenger started easily . . . until one of the Everyman Panel pulled out a chunk of the plastic fascia along with the choke. Local dealers said that the lower fascia moulding was 'out of stock', and that other broken-facia customers were waiting.

The ageing, four-cylinder 1295cc engine is kept smooth-running by a five-bearing crankshaft, economical by aids such as an electric fan, and reliable by electronic ignition. Chrysler's quest for economy has also resulted in such a high top-gear ratio that the Avenger is only class-average in fourth, yet its fuel-consumption figures remain very ordinary.

DRIVE recorded an overall consumption of 33½mpg—just pipped by the 305—and rowing the car with the gear lever through heavy traffic increased its thirst to 26mpg. It just manages to

commute around town better than the Peugeot, with a figure of 27¼mpg; but it's on the motorway that the high gearing comes into its own, giving the Avenger a 70mph-cruising best of 30¼mpg.

The speedometer on DRIVE's test car was very inaccurate (reading 56 at 50mph), and the mileometer was 6½% fast, too: buyers relying on Chrysler's instruments for fuel calculations would appear to have a very economical car. At the end of DRIVE's 1000-mile test, we had to add a pint of oil.

Gearbox ratios are now the same as the Sunbeam's, calling for plenty of throttle during overtaking. A 0-60mph dash takes a respectable 16.6sec—more than 3sec quicker than the ½cwt-heavier Vauxhall Cavalier—and the car will slog on to a howling maximum of 87mph. Lazy overtakers will find the sluggish fourth gear a handicap.

Owners will also be discouraged from traffic-light Grands Prix by the vengeful racket that the engine produces at high revs. In fact, it never sounds particularly refined, its drone being echoed

by body boom at 55mph, and appalling wind noise.

Suspension has been revised over the years. The Avenger's one handling vice: when cornering at speed, in common with many other rear-wheel-drive cars, it gradually runs wide of its intended course—not usually a problem; the snag is that the Avenger over-reacts to the corrective manoeuvre of lifting off the throttle by tucking back into the corner unexpectedly quickly. But despite this lack of manners, it would be difficult to get the car into trouble while cornering, thanks in no small way to the grippy Pirelli P3 tyres.

Even on the straight the Avenger can be an effort to steer. Its stability at speed on a windy motorway looks second-rate these days against some front-wheel-drive and foreign rivals.

The suspension modifications have produced a softer ride, but it can also be pushed off course by lateral ridges—if less so than earlier Avengers.

Fortunately, the major controls are a pleasure to use: the steering feels informative and the gear change is a delight, slipping easily from top to third with a precise, smooth action. In DRIVE's experience, British brakes take some beating, and those on the Avenger are certainly impressive—sensibly weighted and able to stand up to the rigours of AA fade tests without complaint. The front discs and rear drums are servo assisted (with a line-failure warning lamp) and deliver a perfect best stop of 100% at an ideal pedal-pressure of 70lb. Recovery after a water-splash is immediate. Only the clutch lets the side down with an abrupt action, and the high first gear prohibits a 1-in-3 hill restart.

Inside story

Like its Japanese rivals, the two-door Avenger's ample passenger-entry space makes a good first impression in the showroom. Instrumentation is generous for a basic model: a useful trip meter, and seven warning lights for

Everyman Report

The lions may have ignored the Avenger, but it got quite a mauling from the Everyman Panel.

Sandra Spencer pulled out the choke . . . and it came off in her hand, along with a lump of fascia. 'It showed me how tatty and slipshod the car was. The pedals were too far away, so I was unable to put my foot right down on the accelerator. Yet, if all I'd done was to look at these three cars, I'd have chosen the Avenger.'

Roy Kidman used to like Avengers—but this one was too utilitarian, even at the price. The clutch came in with a bang, the gears baulked once or twice, and there was a transmission vibration.'

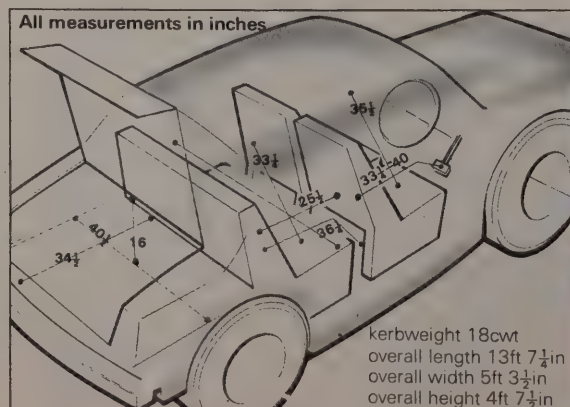
Geoff Antrum suffered on the plastic upholstery: 'It would be hot and sticky in the summer. The best thing was the price, and it did look quite nice . . .'

Glenn Shipton: 'The Avenger's worst feature is its poor acceleration—I couldn't pass anything unless I was going downhill. I imagine the Avenger is an easy car for the DIY man, but it did seem to be very tinny.'

choke, oil pressure, side- and rear-lamp failure, indicators, main beam, no-charge and brake failure. The pedals—like the gear shift—work with easy precision, though the shift can be something of a stretch for taller drivers, which makes the standard inertia-reel seatbelts all the more essential.

In contrast to the Cavalier's cunningly simple single stalk, the Avenger's three levers on the steering column take some time to memorise. The long one on the left controls side lamps, headlamps and horn, while the shorter one operates the indicators; the righthand stalk operates wipers and washer.

As a four-seater, the Avenger rates a good average, although rear-seat passengers could wish for more room to stretch, and a central armrest for this basic model would stop them sliding



around during cornering. Tipping the front seats forward by their side-mounted buttons proves to be a job for a karate expert—they need a hefty prod—and the big complaint in the hot test-weather was that the seats' plastic covering gets sticky.

Luggage space is even better now that the fuel filler has been moved from the rear sill to the side of the car, but the boot's high lip is daunting. Testers also expressed fears about the single-skinned wings, which could dent if a heavy object slides around in the boot.

Heating and ventilation are well short of the high standard set by the Peugeot 305 in DRIVE's group. The Avenger uses a similar water-valve heating system, but it is slow to respond and takes practice to use efficiently; thankfully, the slider controls are easily understood and illuminated.

Cold-blooded owners can get a good blast of hot air when the controls are at maximum, and a small amount will filter through to the rear. Annoyingly, cold air leaks into the footwells even when the system is shut off. The penny-flap fresh-air vents at each end of the fascia prove too frail for some hands—one had a habit of falling out—but they can be encouraged to supply a good airflow.

Passengers are well protected if it comes to a crunch: the steering wheel is padded, and the fascia looks safe, too; but we would like more padding in the roof and along the upper screen rail. The seatbelts are efficient, with their reels located out of the way of rear passengers' feet.

Despite the move of the filler, the fuel tank is too vulnerable in a rear-end shunt for DRIVE's peace of mind, and it can also be bombarded by gravel from the offside wheel.

Living together

The Avenger's flimsy panelwork does not inspire too much long-term confidence. On DRIVE's car, the door panel bent each time the key went into the lock, and a baboon landing on the roof during our photography session at Windsor Safari Park gave it a dent. Untypical use, of course, but rivals took the same punishment without complaint.

The Avenger's record for rust is not bad, despite the notable mud-traps under the wings and the lack of real protection for box-sections and doors. Rust prevention relies on the application of bitumastic-type sealer over primer—not the best treatment for long-term assurance. Paintwork seems better than of old.

Home mechanics will find the car's simple power-plant and spacious engine room a doddle,

although we wonder if the new rear-lamp cluster is an advance, as bulb-changing looks a lot more trouble. The lack of exterior trim makes washday easy, and the inside comes clean, too, even if the carpets cannot be removed—a vacuum cleaner is desirable.

But ease of repair and cheap parts prices are not enough, it seems, for the secondhand buyer, and the Avenger is the fastest depreciator of our trio. They can't, however, beat its cheap Group 2 insurance.

In the welter of publicity urging buyers to put a Sunbeam (virtually an Avenger chopped and restyled) into their lives, the Avenger has been somewhat brushed aside. But there is still a healthy market for a conventional car with a real boot, and there are still many, many people who would prefer to buy British if it matches the best of Europe and Japan.

This is the rock on which the Linwood hope founders: a long-running design such as this should

have built up a faithful following. The Avenger is still reassuringly familiar and pleasing in the showroom, but do many buyers come back for more after a few years with one?

The Avenger does nothing brilliantly—except stopping. It does nothing really badly, either. The price is low, and the equipment list is better than many rivals'. But, even after its long innings, the Chrysler Avenger still lacks a good reputation for reliability and quality control.

Vauxhall Cavalier 1300L

Price £3088 On the road £3178



YES, IT DOES HAVE SOMETHING TO LAUGH ABOUT

It wasn't so long ago that Vauxhall was in the doldrums, losing money through ageing designs and an (increasingly unjustified) reputation for rust. Ford had already pointed the way to more profitable car making: run Europe as one giant car factory, and you can make economic sense of Bordeaux gearboxes for Dagenham bodies.

General Motors followed the leader and married Vauxhall to its German-Belgian relative Opel, which—with the aid of badge surgery—resulted in the birth in 1975 of the Cavalier (named the Ascona, east of Calais), a car to fill the gap in Vauxhall's defence against the all-conquering Cortina. The Cavaliers ranged from a two-door 1600cc saloon to a smart 1900cc coupé, which together fought their way into eighth place in last year's UK sales charts.

The latest Cavalier reinforcement to arrive is a modest 1300cc model, using tried-and-trusted Viva/Chevette mechanicals. But is Luton's litre-and-a-bit engine muscular enough for the burly Belgian body?

How it goes

DRIVE had to lift this junior Cavalier's bonnet to confirm

that Vauxhall's veteran 1256cc engine was still in residence, for the 1300L is probably quieter and more refined than its Opel-

Everyman Report

If the Cavalier had had the Peugeot's interior, DRIVE's group test would have been no contest. Even with its stark decor, the three men gave it top marks.

Sandra Spencer got in—and immediately felt like getting out. 'The colour scheme was distasteful—that blue and black shouts at you. Driving it was an agreeable surprise, though.'

Roy Kidman was impressed: 'It's badly in need of a facelift inside. Nevertheless, I felt happy straight away. The controls are good, and everything is easy to see and find. It's the best of the bunch.'

Geoff Antrum agreed: 'It's as nice to drive as the Peugeot, and it's British. I'd have to get used to the clutch, though—I kept lifting it with my left foot.'

Glenn Shipton: 'I like the Cavalier's shape, and the colour scheme didn't bother me. It was nothing special, but it was comfortable. Maintenance worries would lead me to choose the Cavalier out of the three.'

engined big brothers, especially around town. There, genteel drivers can enjoy a top-gear flexibility below 30mph that's unrivalled by the Chevette and Viva, and the littlest Cavalier can canter happily in fourth almost from the moment it's rolling.

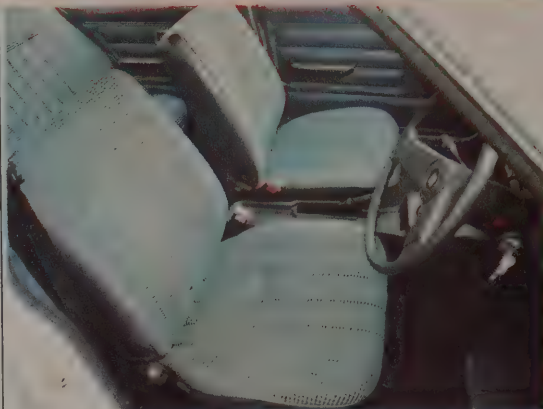
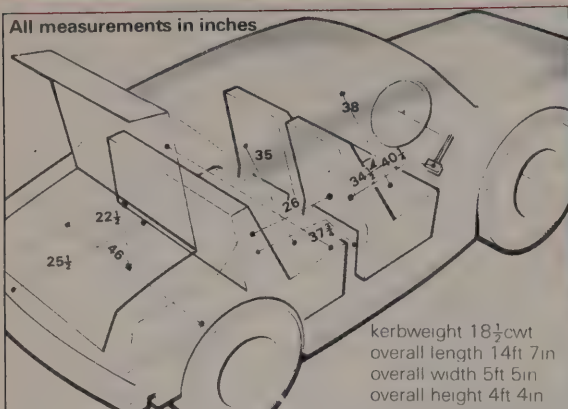
On the test track, however, the lethargic 58bhp engine could be spurred to a maximum of only 85mph, and failed to cut a dash in the acceleration stakes. A clutch-burning 0-60mph sprint took a tedious 19.9sec with the use of all gears—the slowest performance in this 1300cc group—though it redeemed itself marginally with a 30-50mph top-gear hauling time of 13.9sec that just outran the Avenger 1300LS. Most drivers, however, will like using the slick gear change, with its muted accompaniment of characteristic Vauxhall whine from the intermediate gears.

Starting is always easy and, despite an imprecise choke control, the car's use of 4-star fuel is so far from cavalier that Vauxhall's rivals must wonder how the heaviest car in DRIVE's group can also be the most economical. Consumption *does* suffer in extreme conditions: driving hard around town produces 28½mpg, which drops to 21½mpg only when driving flat out; but the Cavalier compensates with miserly mid-speed cruising figures to deliver a best-of-the-bunch average of 35½mpg. Sedate drivers should easily better 40mpg, and even those without the patience to dribble the last gallon into the 11gal tank can exploit a useful 335-mile touring range.

It's only apt that a Cavalier should ride well, and this budget-priced model handles like a costly BMW, cleverly adjusting its ride to its pace. At low speeds, its gentle smoothing of bumps and ridges is so impressive that one wonders what the all-absorbing suspension will do when the pace heats up. It in fact responds by getting firmer and more taut, the only discomfort being a slight 'floating' restlessness that can unsettle some rear-seat passengers.

If there were dressage com-

All measurements in inches



petitions for cars, the Cavalier would excel in those, too. It handles impeccably, with ample tyre- and road-information communicated through the well-weighted steering. There's never a threat that this rear-wheel-drive car will become 'tail-happy' when cornering: the Cavalier goes precisely where it is pointed. Only 'cowboys' are likely to experience a gentle tightening of the car's course at the limit of its cornering speed.

With no nasty surprises up its sleeve, this has to be one of the safest conventional-transmission saloons that DRIVE has tested—which prompted one tester to wonder why engineers resort to complex front-wheel drive for comparable results.

After such handling excellence, the braking proves a bit disappointing. There is no load-sensitive valve controlling the rear brakes, but our main criticism of the system is its lack of progression. The excellent best stop of 100%+ comes at a rather too light 45lb, making for abrupt braking, becoming lighter still when the brake pads are warmed up, but reverting to normal in severe use.

Inside story

The Cavalier's German ancestry has given it an interior trim that's plain enough to please a Puritan, the only frippery being the colour-matching of the fascia to the unattractive but hard-wearing checkered cloth of the seats.

Such functionalism does pay off in the car's instrumentation, however, where three similar large dials house the basic but clearly legible displays for the speedometer, six warning lamps, and fuel and temperature gauges, all set behind a reflection-free plastic screen. One lamp should warn both of an applied hand-brake and a worn clutch, but, on the test car, the latter function failed to work.

Minor switchgear is an object-lesson in simplicity: a single stalk sprouting from the left of the steering column operates the two-speed wipers, electric screen-

wash, indicators and headlamps, and, despite this apparent complexity, its only failing is that righthanders would find it more convenient on the other side of the wheel. Most other functions are controlled by rocker switches set within convenient reach of the steering wheel.

Entry to the front of DRIVE's four-door model was made easy by wide-opening doors—but their sills could be high enough to hinder the less agile. Six-footers can be accommodated in comfort in the front, but, after a good day's drive, one begins to feel that dull ache of poor lumbar support.

Drivers with big boots can have problems, too, accidentally flipping the clutch pedal up past its rest position (at which point the clutch-wear light should operate). The snag is that the pedal likes to stay up...

Back-seat riders get a relatively raw deal. Narrow doors make entry a struggle and, once in, kneeroom can vanish to as little as 24in, forcing long-legged passengers to sit at an angle or pulverise their patellas. Such a pose is all the more necessary when a hectic driver is at the helm, for the rear seat's lack of contouring or a central armrest allows occupants to slide around.

Heat was the last thing that DRIVE's testers needed in sunny test conditions, but the heater is an old Vauxhall friend that is efficient and eager to respond to chosen settings. Surprisingly, front-seat passengers are treated as second-class travellers, getting a less-than-fair share of footwell warmth and being unable to reach the heater controls.

The fascia is equipped with four hinged penny-flaps for ventilation, the outer two linked to the fan for a blast of hot air to demist side windows. Cleverly, they can also be angled towards the driver, who gets little comfort from the central flaps unless the car is moving fast.

Whatever the Everyman Panel thought of the Cavalier's colour-keyed interior, the professionals admired it for its safety-conscious styling. Interior fit-

tings could have had full marks for passenger protection, but for a hard windscreen surround.

Comfortable inertia-reel seatbelts are included in the 1300L package, and both ends of the car are designed to collapse progressively on impact, cocooning the passengers.

Living together

Vauxhall learnt the hard way that a rusting reputation takes a lot of time to reshine: 20 years on, potential buyers are still suspicious. They needn't be. While Vauxhall's rust protection is not perfect, in DRIVE's judgement, it certainly ranks among the best currently available. The L model ought to last even longer than the flashier Cavaliers, whose exterior trim is usually a rust-bug incubator.

Home mechanics have plenty of elbow-room in the long engine compartment. Designed to house a 2litre engine without the need for a shoehorn, it makes the Viva mechanicals look lost.

On dirty days, road-spray leaves its mark on the sides of the car (mudflaps would be a worthwhile extra), but the lack of superfluous trim and the car's clean lines make it easy to restore the gleam.

We guess that depreciation will be class-average.

Experienced drivers are quickly charmed by the Cavalier's impeccable road-going manners, which, on tortuous tracks, can go some way towards compensating for the 1256cc engine's modest power. But, in exchange for that power loss, the 1300L offers a 20% fuel-saving over its 1600cc and 1900cc (now 2litre) comrades.

The snag is that many potential buyers could—like our Everyman lady—find the interior so unattractive that they'd be reluctant actually to test-drive the car. But, once behind the wheel, even those who regard with scepticism the idea of a smart European body cloaking an aged engine will be convinced.

That it works so well must have been a pleasant surprise even to those who made the transplant.

PEUGEOT 305GR

Front engine: 1290cc/4cyl, OHC (chain); one single-choke carb; 65bhp at 6000rpm
Front drive: 4 gears, 16.75mph/1000rpm
Suspension: front—ind damper/struts, coil springs, anti-roll bar; rear—ind trailing arms, coil springs, anti-roll bar
Steering: rack and pinion, 3½ turns/32½ ft circle; 4½J wheels, 145SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £43.99 (fitting 3.25hr)
exhaust £59.04 (1hr)
headlamp unit £24.06 (0.5hr)
front bumper £47.39 (0.5hr)
laminated windscreen £42.77 (2hr)

oil filter and points £5.03 (1hr)
major service 10,000 miles (3½ hr average)

	per year	per mile
Running costs	£584	4.87p
Loss of value	£149	1.24p
Total depreciation	£644	5.37p
Insurance group	4	

CHRYSLER AVENGER 1.3LS

Front engine: 1295cc/4cyl, OHV
one vari-jet carb; 59bhp at 5000rpm
Rear drive: 4 gears, 17.7mph/1000rpm
Suspension: front—ind MacPherson damper/struts, anti-roll bar, rear—coil-sprung live axle with trailing arms and upper diagonal links
Steering: rack and pinion, 3½ turns/31½ ft circle; 4½J wheels, 155SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £27.46 (fitting 1.9hr)
exhaust £32.57 (0.6hr)
headlamp unit (less bulb) £17.80 (0.5hr)
front bumper £16 (0.2hr)
laminated windscreen £42.25 (0.6hr)

oil filter and points £2.20 (0.2hr)
major service 10,000 miles (2.3hr)

	per year	per mile
Running costs	£517.5	4.31p
Loss of value	£131	1.09p
Total depreciation	£725	6.04
Insurance group	2	

VAUXHALL CAVALIER 1300L

Front engine: 1256cc/4cyl, OHV (chain); one variable-jet carb; 58bhp at 5600rpm
Rear drive: 4 gears, 16.4mph/1000rpm
Suspension: front—ind wishbones and coil springs, anti-roll bar; rear—coil-sprung live axle, torque tube, Panhard rod and anti-roll bar
Steering: rack and pinion, 4½ turns/32ft circle; 5J wheels, 165SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)

clutch £36.46 (fitting 2.0hr)
exhaust £77.60 (1.2hr)
headlamp unit £39.20 (0.5hr)
front bumper (exchange) £16.85 (0.9hr)
laminated windscreen £84.02 (1.8hr)

oil filter and points £2.41 (1.0hr)
major service 6000 miles (3.4hr average)

	per year	per mile
Running costs	£577	4.81p
Loss of value	£83	0.69p
Total depreciation	£680	5.67p
Insurance group	3	

THE RIVALS CLOCK IN

Austin Allegro 1300 4-door Super

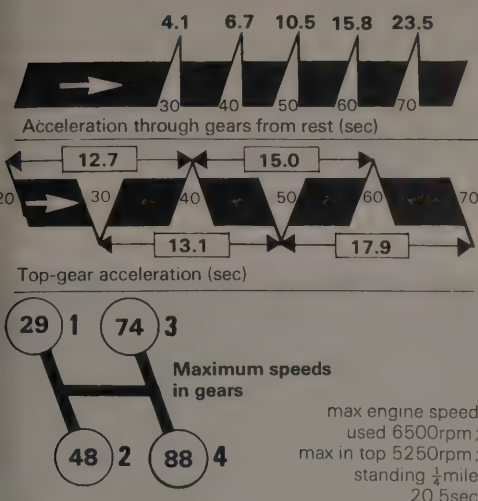
Citroen GS 1220 Club

Mazda 323 1300 5-door

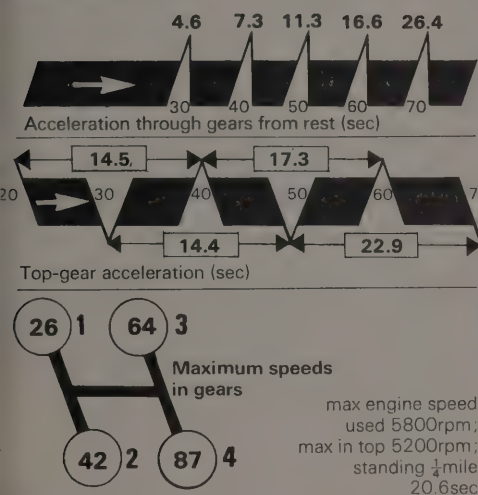
Triumph Dolomite 1300

Renault 14TL

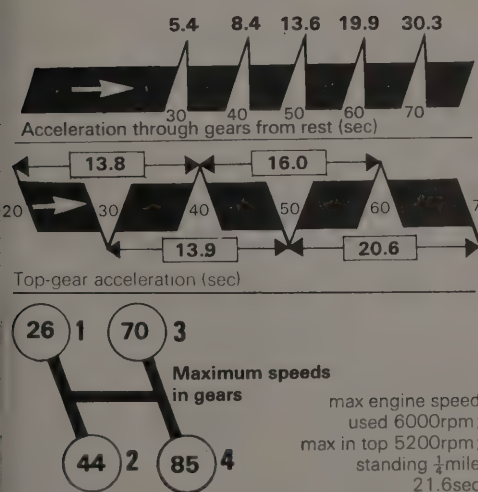
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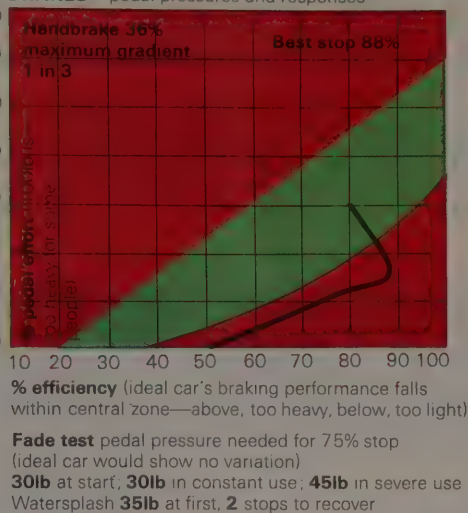
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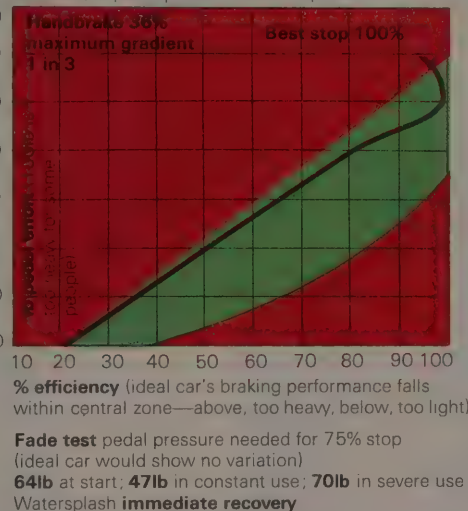
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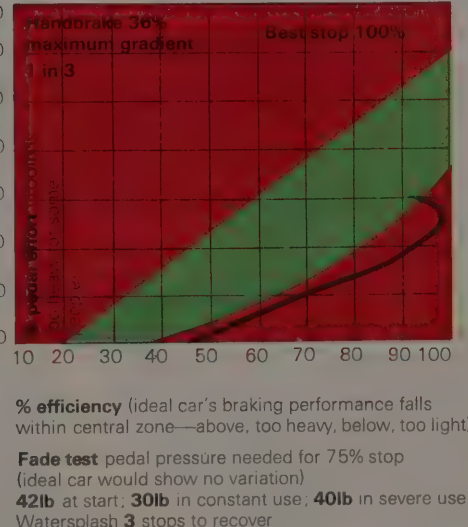
BRAKES—pedal pressures and responses



BRAKES—pedal pressures and responses



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane min
overall consumption 33 $\frac{1}{2}$ mpg
effective tank range 295 miles/8 $\frac{3}{4}$ gal

Normal range of consumption

short journey, suburban	27mpg
hard driving, heavy traffic	29 $\frac{1}{2}$ mpg
motorway—70mph cruising	29 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	35 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	41mpg

Consumption at steady speeds

30mph	57 $\frac{1}{2}$ mpg
56mph	37mpg
70mph	29 $\frac{1}{2}$ mpg
max mph	21 $\frac{1}{2}$ mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	O	w/screen: laminated?	O
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	Yes

FUEL 4-star/98 octane min
overall consumption 33 $\frac{1}{2}$ mpg
effective tank range 300 miles/9gal

Normal range of consumption

hard driving, heavy traffic	26mpg
short journey, suburban	27 $\frac{1}{2}$ mpg
motorway—70mph cruising	30 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	35mpg
quiet rural—40mph cruising	39 $\frac{1}{2}$ mpg

Consumption at steady speeds

30mph	51 $\frac{1}{2}$ mpg
56mph	37mpg
70mph	30 $\frac{1}{2}$ mpg
max mph	22mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	No	w/screen: laminated?	O
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

FUEL 4-star/97 octane min
overall consumption 35 $\frac{1}{2}$ mpg
effective tank range 335 miles/9 $\frac{1}{2}$ gal

Normal range of consumption

hard driving, heavy traffic	28 $\frac{1}{2}$ mpg
short journey, suburban	29mpg
motorway—70mph cruising	30mpg
mixed roads—brisk, 50mph cruising	36 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	42 $\frac{1}{2}$ mpg

Consumption at steady speeds

30mph	52mpg
56mph	38mpg
70mph	30mpg
max mph	21 $\frac{1}{2}$ mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	No	w/screen: laminated?	No
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	O	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
2905	1275	37	85	19.0	12.9	90/55	12' 8"	40	40 $\frac{1}{2}$	3 $\frac{1}{2}$ /34
2981	1222	33	93	17.2	11.9	95/45	13' 6 $\frac{1}{2}$ "	40	36	3 $\frac{1}{2}$ /31
2799	1272	36 $\frac{1}{2}$	89	15.9	11.8	100/40	13' 0"	39 $\frac{1}{2}$	37 $\frac{1}{2}$	4 $\frac{1}{2}$ /29 $\frac{1}{2}$
3140	1296	33	83	19.8	14.0	95/90	13' 6"	40	37	3 $\frac{1}{2}$ /30
2927	1218	36 $\frac{1}{2}$	89	14.8	11.3	90/70	13' 2"	41	38	4/32 $\frac{1}{2}$

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Shell
Motor Oils



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MONEY

Shares in the boom

DESPITE THE latest credit squeeze, Britain's motor trade looks set for a prosperous year or two. Sales of new cars have been running more than a fifth higher than last year, and some crystal-ball gazers think that 1978 registrations could be close to 1973's record 1,660,000.

Investors have had a rougher ride since the 1973 oil crisis than those with shares in other industries, but over the past couple of years they have been showing signs of catching up with the pack.

Among the *manufacturers*, Rolls-Royce Motors looks the best bet. Since it was rescued from the wreckage of the bankrupt aero-engine business and re-floated on the Stock Exchange it has had a good track record and its shares usually offer a good return. A tiny minority of shares in state-controlled BL Cars, are still quoted, but they will not pay any dividends for years, so are a bit of a speculation.

When looking for good companies supplying *motor components*, it doesn't pay to pick the obvious—such as chasing shares of seatbelt makers, for example, in anticipation of a compulsory 'belt-up': by the time new laws come in, shares in companies hoping to benefit have usually been heavily bought at high prices, and competitors have probably also rushed into the market, cutting profit margins.

It is wiser to stick to companies with widely spread businesses, such as Lucas, Dunlop, Smiths Industries, Wilmot Breedon and the BBA Group (Mintex). And the best time to buy is when the shares are depressed by one of the many motor-industry strikes...

Car care, as DRIVE's investigation shows on pages 38-41, is a booming business. Holt Lloyd, which includes Redex, Turtle Wax and Molslip, has doubled its profits in the two years since the Holt and Lloyd companies merged, and the firm is pushing into America.

Among the *distributors*, Heron Motor has a dynamic profit record, and I like Western Motor Holdings, the Plymouth-based distributors of Rolls-Royce and of Jaguar and other BL Cars.

ROBERT HEAD

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D53

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D53

Sweet little rollers

The high cost of running a car and the increasing inadequacy of public transport is persuading many people to take to two wheels. Many begin with a moped. But, however cheap a moped may be to run, its lowly performance quickly reveals its disadvantages to anyone with more than a few miles to travel through heavy traffic.

Here, **DRIVE** breaks new ground and puts two lightweight motorcycles through their paces—Honda's CB125T2, a sporty little sophisticate from the leading Japanese manufacturer, well-suited to a novice; and the Czech CZ 175 de luxe, a modern equivalent of BSA's trusty old Bantam

Honda CB125T2 Price £599

The sleekly styled, bright red Jap turns out to be, in effect, two motorcycles sharing a common frame. One is a quiet, smooth, comfortable little twin-cylinder cruiser, offering up to 100mpg-plus; the other is a fast, agile overhead-cam sportster, capable of a sizzling 72mph and a 0-50mph burst that just breaks the 10sec barrier.

These are extremes, of course, and in between lies a range of more generally usable performance. Nevertheless, the CB125 could never be described as a relaxing machine. It feels as taut as a bowstring, giving its best only to sensitive riders—a delicate animal, both in performance and construction. A standing-start needs no less than 3000rpm if the engine isn't to stall.

It is, perhaps, this 'bone-china' quality that gives the little Honda its appeal—the sort of thing a watchmaker might appreciate. And its gem-like engineering is reflected in handling which, while stable enough, could be justifiably labelled as over-light; it seems to be affected by just about every-

thing barring the time of day.

With the real power in the little engine lurking beyond the 8000-rev mark, fifth gear is very definitely a high-speed cruising notch. In fact, it isn't until 10,000 revs that it feels completely happy in fifth—over 67mph.

In town, 125-riders are unlikely to get beyond fourth gear—fortunately close (confusingly close?), and invaluable for maintaining progress into headwinds and up-hill. The only pity is that the combination of noise and sensitive handling makes it wearying, and that prolonged use in fast, open-road work can reduce consumption to as little as 60mpg.

Braking is mixed: the cable-operated front disc gives strong, reasonably sensitive deceleration from a light grip; but the rear drum, while adequate under most conditions, looks far too easily in crash-stop conditions.

The riding position is something of a sporty stretch, though comfortable with it. The controls tend to be a bit Noddy-like: the tiny switch-toggles, for example, could create problems for a gloved



Dave Minton, DRIVE's 39-year-old contributing motorcycle expert, has acquired a worldwide readership in his 12 years of journalism. His own transport is a 750cc Laverda; here, he's flanked by the Czech and Japanese test bikes

hand; the delicately-sprung trafficator switch is easy to over-cancel; and, while Honda does provide twin rear-view mirrors, their mounting stalks are so short that a rider sees little but the reflection of his elbows.

Despite the sophisticated impression it leaves, the Honda is in fact a relatively simple bike to maintain, requiring no special tools or skills for routine servicing such as points adjustment. The toolkit and owner's handbook supplied will be adequate for most jobs.

CZ 175 de luxe Price £292

By Japanese standards, the CZ looks ugly, feels heavy and sounds old-fashioned. Even a first test-ride does little to revise the

impression; but then, as familiarity increases and journeys lengthen, the single-cylinder 2-stroke reveals its charms.

At speed, the CZ sits four-square on the road, with all the aplomb of a heavyweight. It's not that it actually lacks any 'feel'—rather that it refuses to be upset by crosswinds, surface irregularities and suchlike.

Starting is the worst part, requiring the almost-forgotten art of kick-starting. The routine is to switch on the petrol tap, 'tickle' the float-chamber flood-button, ease the engine over once on a priming stroke, then switch on the ignition and kick down on the crank. It is rarely successful first time on a cold engine, and our

Side by side

IN RECENT YEARS, the motorcycle-and-sidecar combination—a form of transport that went out of favour about 25 years ago—has enjoyed an unexpected revival. The trend back to 'outfits' is hard to pin down in figures. On-the-road statistics don't exist. But membership of the Federation of Sidecar Clubs is increasing steadily. The number of affiliated clubs has gone up from 19 to 28 in the last three years, and total membership, including individuals not tied to any club, now stands at almost 500.

In the late 1950s, the combination all but vanished in the growing prosperity that put the Mini, or at least the three-wheel car, within reach of many ordinary families.

In 1964, when the number of combos registered had dropped to 104,000 the then Ministry of Transport stopped keeping statistics. But things have changed dramatically: sidecar travel is economically



Most summer weekends, carpet-fitter Derek Coote (left), of Tooting, London, goes to club meetings with his wife Ann riding pillion on their BMW R75/5 Difazio. Daughter Cheryl, 11, goes along too, tucked safely in the Wessex sidecar. The Crisps (right), of Forest Gate, south London, run an outfit each: engineer Ken does 9000 miles a year; wife Christine, about half that, Pauline, 15, and Martin, 13, have a choice of sidecars...



Stuart McPherson

Top left: Honda's seat swings up for access to battery and toolkit. Top right: warning lights are grouped between the speedo and tachometer. Above left: CZ's separate oil tank. Above right: unlabelled minor switches

tester's ankle bears testimony to the folly of impatience.

Conquer the starting, however, and few problems remain, apart from a gear-change pedal that activates the clutch as well—a sort of automatic clutch that is actually quite good, once mastered. The only disadvantage is that it makes down-changes a rather long-winded affair, particularly noticeable on steep hills, when speed drops unreasonably. However, owners preferring a more conventional system can disconnect the linkage quite simply.

Engine power is almost agricultural in its availability: once under way, bottom gear can be dispensed with, and the other three used almost carelessly,

rather in the manner of a car. Top speed finalises at 68mph, a tolerable cruising speed... but such tactics reflect in a low fuel consumption—56mpg. Unlike the Honda, but like most 2-strokes, the oil system is total-loss—a pint every 400 miles.

The engine is acceptably quiet, with a well-modulated exhaust note, and is disturbed only by a deep induction moan—a minor problem. Full rear-chain enclosure stifles noisy chain-swish, as well as ensuring a long life for the expensive chain.

Braking is excellent, if heavy, refusing to lock up in panic-stops. The CZ might be a well-made little motorcycle, but the Czechs still have a lot to learn about

detail: switch toggles are far too small and badly positioned, and there are no rear-view mirrors—a must in these congested days.

Apart from the ride itself, probably the greatest attraction of the bike is its rugged build and DIY-

maintenance design. The toolkit covers all likely requirements, other than a really major repair, and the owner's handbook is chock-full of data and instructions for everything from a top-end overhaul to tyre mending.

HOW THEY MEASURE UP	HONDA CB125T2	CZ 175
Engine output	air-cooled ohc 4-stroke twin 16½bhp/11,500rpm	air-cooled 2-stroke single 15bhp/5800rpm
Transmission	5-speed, exposed chain	4-speed, fully enclosed chain
Kerbweight	271lb	276lb
seat height	30in	29½in
max width	22½in (footrests)	27½in (handlebars)
max length	78½in	78in
Fuel tank	2.5gal/223miles	2.4gal/200miles
Mpg—overall	89	83½
quiet use	104	106
suburban use	94	101
brisk use	89	78
hard use	64	56
Performance—max	72mph	68mph
0–50mph	9.9sec	11.1sec
30–50mph (top)	19.1	13.3
Warranty	12 months/unlimited miles parts and labour	6 months/6000miles parts and labour



David Cripps

The Jays (left), of Guildford, Surrey, run a 1959 650cc BSA, with a Watsonian Palma sidecar for daughters Denise, 13, and Nicola, 11. Workshop foreman for a motorbike dealer, Alec has won 28 rally prizes, many with help of his wife Helen. Also of Guildford, Robert Pritchard (right), a building worker, became a combo enthusiast at 50, when his wife persuaded him to fit a Watsonian sidecar to his 650cc BSA Goldflash.

attractive, thanks not least to the rising cost of petrol and car repairs.

With the recent introduction of cheap imports from Eastern Europe, a family of three can get on the road for about £850—less than half the price of a new Mini. And, because combinations are considered safer than solo motorcycles, insurance costs roughly half as much. Road tax is little more than one-third of a car's, and petrol consumption is almost as good as that of a solo machine.

The combo is not only popular as a cheap means of transport: sidecars designed for racing are developing fast, ahead of road machines. The latest idea is for the sidecar wheel to be steered in line with the bike's front wheel, and power-driven in harness with the rear wheel.

But, on the road, economy is not usually the sole attraction of a combo. The owners pictured here all share a liking for wind-in-the-face travel... and, on a fine day, when the family car becomes a hot-box, who would be anything but envious of their three-wheel freedom?

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DEPEND ON DEVCON



TONY POTTER saw more of his Citroen CX2400 in his first 48 hours of ownership than he had of any of the other nine cars he has owned over the last 25 years. At the AA's vehicle-inspection centre at West Bromwich, near Birmingham, disabled-driver Tony watched AA engineer John Williams give the beige Citroen a thorough inspection as it joined the three other cars on DRIVE's long-term test; for the first time, Tony was able to see just what a car looks like underneath.

Manoeuvring his wheelchair under the elevated ramps, he followed Williams' every move as the underbody was examined, and exclaimed: 'I'm even more impressed with the car, now that I've seen it from this angle.'

A 47-year-old managing director of a small Midlands engineering firm, Tony Potter is a survivor of the famous Naval action in south-east Asia in 1949, when the frigate *Amethyst* was trapped by gunfire in the Yangtze River. He is paralysed from the waist down and wheelchair-bound—except, that is, when driving. Then, he slides into the driving seat, folds his wheelchair up beside him, and becomes quite independent, driving up to 12,000 miles a year.

His choice of car, and its reliability, are of course of paramount importance. Room for his wheelchair, both inside the car and in the boot, is what he looks for first; then his priorities are reliability and after-sales service. 'My wife and I set out to buy a Jaguar XJ6, but I must confess that the dealer was so unhelpful about my special requirements that, in the end, we decided the Citroen would suit me best,' says Tony.

He went to Citroen main dealer David Hiam Ltd, of Old Kingsbury Road, Birmingham, and paid £5400 for a new Citroen CX2400 Super C-matic. The reception I received from David Hiam personally was exceptional. He arranged to see me after working hours, gave me a test drive, and promised the car in eight weeks. In fact, he delivered in seven.'

Before deciding on the Citroen, Tony Potter and his wife Audrey also considered a Volvo 245, but the boot lip was too high for loading the wheelchair, and, though the salesmen were anxious to help, Tony was afraid that cutting down the sill might have jeopardised the strength of the body.

'With the Citroen, all I needed to have done was to have hand-controls fitted. The day after I got the car, Audrey drove me to Driffield, in Yorkshire, to a firm that specialises in fitting them—and for only £45.'

The following day, with nearly 500 miles now on the clock, Tony kept his date with the AA's John

Perfectly Mr Potter



Long
term
test club



Top: Tony Potter's pride comes to West Brom for a going-over by the AA's Williams. Above left: Wheels within wheels; right: Tony's specially fitted hand controls.

Williams. And, after two hours, he was relieved to learn that the new car had been given a relatively clean bill of health. Of the faults Williams did find, the most important was a severe hydraulic-fluid leak at the rear of the engine.

'To be fair to the dealers,' says Tony, 'they pointed out the oil leak to me before I took delivery, but I couldn't wait for them to cure it. They said they'd deal with it when I had the first service.'

That was a mistake. 'The delay in having the leak attended to has caused some deterioration of the underbody sealant,' reported Williams. He found that the whole exhaust system had been coated with sealant, too—'an extraordinary thing to do. It'll certainly cause some nasty smells until it's all burnt off.' Williams also noted that a balance weight on the outside of the offside front wheel was not clipped on properly, and there was exhaust-blow at the manifold.

On the other credit side, Williams approved of the appearance of the vehicle: there was only a small rust mark near the boot-lid hinge. The inside was almost perfect—the only fault being a loose weather strip on the nearside front door which lifted when the window was wound up.

The engine was found to be

fractionally retarded, and the throttle was sticking slightly, but the AA's expert was prepared to attribute this more to the hand controls than to Citroen's pedals.

Comforted, Tony Potter set off the following weekend on a 1500-mile Continental trip, with him as sole driver. Before leaving, he had the hydraulic-fluid leak repaired, and, on his return, the other small items were dealt with at the free first service. Tony is now clocking up the miles, with business trips around the Midlands, before making his next DRIVE pit-stop.

LONG-TERM ALLEGRO



PETER AND JACKIE Murray walked into their local garage at Burnham-on-Sea, Somerset, to look at a dissected Austin Allegro displayed in the showroom—and half an hour later decided to part-exchange their old Vauxhall Viva for a whole Allegro 1300 Super to be delivered on 1 April...

Check 1 showed one job demanding prompt attention—an oil leak from the nearside drive-shaft.

The Murrays' child safety-seat had been fitted free of charge by the garage, but a missing spacer had caused a nut to damage the

car's trim; a plastic knob was missing from the child lock on the nearside rear door; the boot lid was misaligned; the interior mirror was loose; and the glove-box lid rattled. There was a bad paint run under the filler-flap, calling for a respray of the rear offside panel.

Check 2 at 3618 miles, three months later, found the Murrays' Allegro being probed for rust by AA engineers armed with an endoscope to spy hidden corrosion.

Engineer John Brinson was surprised to find sand in the bottom of the front doors—a leftover of a camping trip to France. Commented Brinson: 'It might cause problems if it gets into the seams, and could accelerate rust.'

Apart from that, all he could find were minute specks of rust under the bonnet front edge, and some thumbnail-sized spots on the petrol tank. He also noted that the wheelarch lips were protected only by paint.

Brinson's AA colleague, Barry Hay, was pleased to find that the earlier oil leak had been cured, but less happy that the engine oil level was well below minimum.

The child seat mounting and the safety catch had both been mended, but the paint run was still there. Peter Murray said that the Foundry Garage in Burnham had promised to take it up with the BL representative.

Hay noted slight feathering of both front tyres and recommended a steering-geometry check. Peter had failed to notice a marked vibration at 65mph. He had also missed the brake fault that Barry Hay discovered in one minute on the road—even modest braking pulled the car to the right.

At the end of the test run, the

LONG-TERM TEST

car's idling speed was anything but idle, racing at 1300rpm. Hay blamed a sticking throttle. Timing was 12 degrees out, which didn't help economy or performance.

Peter confirmed that the garage had tried to fix the badly aligned boot, but, when the lid was adjusted to fit properly, it would not lock. So now it's still misaligned, but not as badly as it was. And at least it locks...

Peter's fuel records show that the car achieves a remarkable 42mpg on gentle cross-country drives, and that the consumption figure never drops below 34mpg. How much better would it be if it were correctly tuned?

He adds: 'Generally speaking, we are happy with the car. We certainly like it better than the Viva, and my wife, being small, appreciates its superior visibility.'

LONG-TERM ALFASUD

 BRITISH AIRWAYS pilot Tony Colin, 32, collected his Alfa Romeo Alfased 1300ti last January from Ormsby Cars, of Reading, Berks, and he's been flying high ever since he picked it up...

Check 1 Tony was undaunted by the news that rust on the inside of one wing was older than the car's recent Endrust treatment. He'd already discovered that the

driver's door was a poor fit—'A common feature with Alfaseds,' observed the AA's expert—but nothing marred his enjoyment of the car's performance.

Check 2 The Alfa dealer's 1500-mile first service was exhaustive: panels were resprayed to cure hairline scratches, an inaccurate rev counter was earmarked for replacement, and a poorly chromed mirror replaced. The badly hung driver's door was still doing the surrounding paintwork no good, however, and a leak from the brake-fluid reservoir threatened to cause similar troubles under-bonnet.

'Assuming the odometer is correct,' said Tony, 'a brim-to-brim fuel check showed 28½mpg, but, following the service, this has risen to 31mpg.'

Check 3 Since DRIVE last met him, the gadget-mad Tony has fitted a Lumenition electronic ignition system to his Sud in an attempt to improve fuel economy and long-term reliability. The Sud's original rev counter was replaced free of charge—but the second one packed up days later; that, too, has been replaced.

Says Tony: 'The car has now done 5900 trouble-free miles. The oil pressure was reading low, but it turned out to be a transmitter problem which Ormsby Cars fixed easily. I've also gone back to Endrust for another application of

underbody protection. There's so much sealant in the box sections now, you wouldn't believe it...

'I seem to be getting fantastic fuel consumption: the best brim-to-brim gave me 34mpg on a long motorway run, and I wasn't hanging about. Town driving isn't quite as good, though. I usually get 29mpg.'

AA engineer Chris Warwick, who has seen a lot of very rusty young Alfaseds, admits: 'The Endrust treatment looks thorough now. Colin's car shouldn't have a rust problem for years.'

LONG-TERM CORTINA



DAVID JONES, 27, chose a Ford Cortina 1600GL automatic last November to commute to work as manager of a fuel-supply company at Heathrow Airport. His purchase also made him the founder-member of DRIVE's long-term test club...

Check 1 The day-old car was already exhibiting rust inside its wings—one of which had been resprayed—and there was an irritating wind noise from the front passenger's window.

Check 2 In April, David returned to Friary Motors of Old Windsor, Berks, for the first 1500-mile service. It was thorough, but,

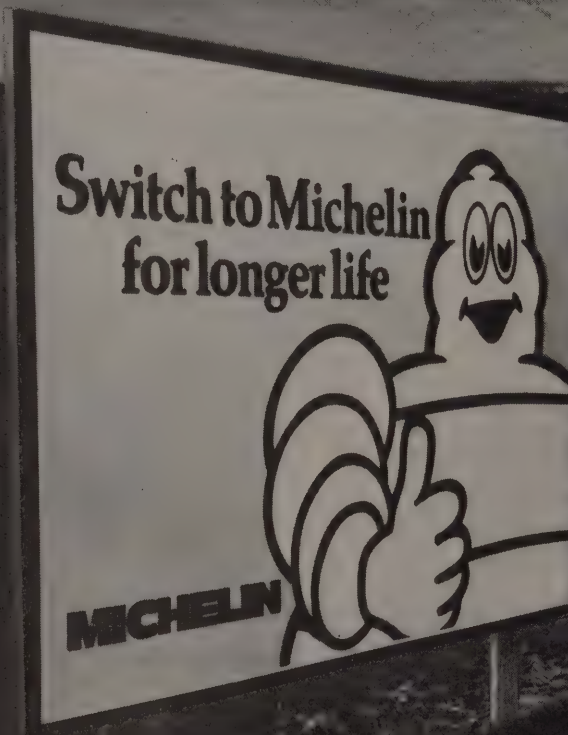
with the auto choke, the car was guzzling an average of 20mpg; and that window was still howling.

Check 3 David is no fan of the garage trade, but Friary Motors is doing its best to alter his views. In May, when the Cortina was still short of its 6000-mile service, the dealer lent him a Ford Fiesta while the broken choke linkage was repaired. But the windy window defeated a local specialist, who broke the original glass in an attempt to make it fit properly.

'In the end,' said David, 'he admitted that the screws holding the channel were rounded off, making them impossible to adjust.' **Check 4** With 6000 miles coming up on the clock, David decided to tackle his own first major service before bringing the car in for its latest check by DRIVE's AA engineers, and he diligently worked through Ford's check-list.

Says David: 'It took two or three hours. The things that take time are the plugs, points, oil filter and oil change. I also topped-up the back axle, and spent some time removing the air cleaner and rocker cover before discovering that I needed a special tool to check the torque on the cylinder-head bolts; I couldn't do that. But there were no visible oil leaks.'

'The front passenger window still produces a lot of wind noise; I'll have to cut some new slots in the rounded-off screws, remove them,



and fit new ones to make the window channel adjustable.

'I've fitted locking nuts to the sports wheels to foil would-be thieves, a locking petrol cap, and air horns—the Ford hooter was too polite. Oh, and I've tightened a bolt on the water pump to stop a leak. It seems OK now.'

AA engineer Chris Warwick welcomed the Cortina back three days after David's DIY service, and was quite impressed by his maintenance job. However, Warwick noticed that the tyres were wearing unevenly at the front—a fault traced to the car's tracking. This was a problem for David's dealer.

Other faults: 'A slight seepage of oil from the back axle; a leak from the pinion seal; the car pulls to the right under hard braking; the engine is running rich on idle; and there's a slight engine rattle.'

'I suspect that last is coming from the camshaft belt,' Warwick adds. 'It needs querying with the dealer. It may be nothing serious, but it is there.'

Since David Jones' last appearance in *DRIVE*, his wife Julie has given birth to a son, Adam. Says David: 'At the moment, Julie sits in the back and holds the baby in her arms, but I'll have to start looking at child restraints.'

Stop press Friary Motors stopped the wind noise by replacing the screws with two small bolts.



GREAT ESCAPES

Just desert

THE DESERT hawks hovered ominously. Not an oasis within 100 miles, and we were down to our last drop.

Well... not water, exactly. We had plenty of that. More like the last bottle of wine, the last cans of beer, and a few Cokes.

Hardships in today's Foreign Legion aren't exactly as bad as when the French garrisoned the Sahara. The *legionnaires* have changed, too. What patrol ever consisted of a London stockbroker, a chic Belgian milliner, a portly Zurich gnome, a Swedish

couple in their seventies and, among a dozen others, a blue-rinsed belle from New York?

Beau Geste would have retired to Bournemouth if he could have seen our desert transport—an air-conditioned luxury coach, complete with mini-bar. Even so, the belle complained about the lack of 'comfort stations'.

But even she couldn't find much fault with the new-style desert *caravanserai*. No pull-up for camel drivers ever had the luxuries offered by the modern chain of oasis hotels, with their air-conditioning, bedrooms with private baths, and restaurants serving French cuisine. And bathing in the limpid waters of the oasis now means taking a dip in the hotel swimming pool.

Putting the Sahara on the tourist trail may have reduced some of its rigours, but it hasn't changed that impressive, stark aridness. Nor has it taken away much of the romantic, waving-palm isolation of the oasis. Such evocative names as El Oued, Touggourt, Ouargla and El Golea match the shady Arab mystique that still hangs over them.

Not even a Coca-Cola sign hangs over Beni Isguen, the 'city of purity', and one of the holiest places of that fervently religious sect called the Mozabites, which hides behind the ancient stone walls as covertly as the local

women hide behind their yashmaks. One glimpse of our modern 'evil eye'—the camera—and they vanish into the warren of narrow alleyways like frightened rabbits. No doubt they come out at night, since, at dusk, the great gates of the city are clanged shut—to keep out the infidels.

The welcome and the women-folk at the other oases on our trans-Sahara trek were much warmer. Visitors to El Oued, for instance, can get dragged around this Town of the Thousand Domes by local girls during its lively spring festival.

But single chaps should be a bit wary at Ouargla, for the major festival celebrates marriages and date-palm fertilisation.

In summer, the Sahara reaches 120°F or more, which is why tours take place only in winter, when it's a pleasant 68°F in the shade. But surprisingly, perhaps, you run more risk of frost-bite than heat-stroke then, for at night the desert gets close to freezing. So pack a jumper but leave your raincoat behind... Some places here haven't had rain for 10 years!

BILL GLENTON

Air Algeria, 10 Baker St, London, W1, or British Caledonian, Gatwick Airport, will fly you to Algiers; Sonatour or Altour, 5 Boulevard Ben Boulaid, Algiers, will arrange various tours. Prices from £300.



Michelin were the first to develop the radial tyre. And have been keeping one step ahead of the competition ever since.

You can start switching to Michelin in a small way. Two wheels at a time. Or, better still, go the whole hog. But always consult your tyre specialist.

Switch to Michelin.

**Unipart can
make your new
car give you
a suntan, sing
to you and
keep your body
beautiful.**

Give you a suntan

You don't need to own a sports car to have the thrill of open motoring.

A Unipart sunroof adds only about 5% to the cost of the average new car – and that includes fitting.

Yet it adds vastly to the fun you get from your motoring, as well as adding to the resale value of your car.

It's ridiculously simple to open and close. And each time you open it, a built-in perspex visor pops up to retain the correct aerodynamic airflow over the roof.

So even at speed you can enjoy a bit of sunshine and fresh air without feeling you're in a wind tunnel.

Ask the salesman about a Unipart sunroof when you order your new car.



car audio from a simple manual radio to a full stereo radio/cassette system.

Ask for a demonstration at the same time as the salesman's demonstrating the car.

Keep your body beautiful

If you want to protect the resale value of your shining new car, make sure it stays shining and new-looking.

Ask any dealer. The biggest single factor in determining the price of any used car is the condition of the bodywork. Yet it costs so little to make sure it stays in good condition, providing you have it done when your car is new.

For around 2% extra on the cost you can have it rust-proofed all over – doors, sills, wings and underside – using Unipart's own special system.

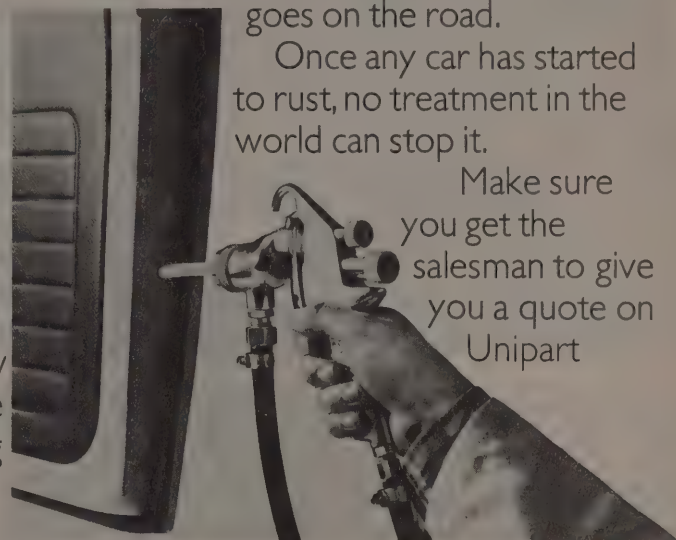
When the job's done, you get a written 6-year guarantee against corrosion. So you're

virtually bound to save the cost many times over.

But be warned. It's important to have the job done before your new car goes on the road.

Once any car has started to rust, no treatment in the world can stop it.

Make sure you get the salesman to give you a quote on Unipart



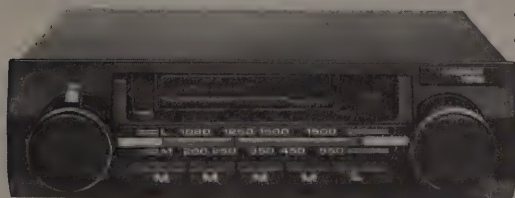
rustproofing when you order the car in the first place.

Whatever accessories you want for your new car, you'll usually find Unipart has them ready and waiting in stock.

They're all competitively priced. They all add to the value of your car. Most of all, they all help you to make your car more useful and enjoyable to drive, for only a fraction more on the cost.

UNIPART

Thousands of parts for millions of cars.



Make your car sing

Adding a Unipart Moving Sound system to your new car need add only about 2% to the cost. But just think what a difference it makes.

It helps you to keep your cool in frustrating traffic jams.

It keeps you amused on motorway marathons. And it keeps you company when you're driving alone.

So, when you order your new car, make sure you ask about Unipart Moving Sound.

It covers the full range of

THE GUARANTEED RIP-OFF

TRouble ONLY MONEY CAN BUY



BUSINESS WASN'T EXACTLY BRISK AT THE USED-CAR DEALER'S. ONLY ONE 'PUNTER' ALL MORNING...

HMM—NOT BAD AT ALL. BUT IS IT LIKELY TO GIVE TROUBLE? I MUST HAVE A CAR THAT WON'T LET ME DOWN!

SENSING THAT HE COULD CLOSE A DEAL WITH A BIT OF FAST TALKING, THE SALESMAN ENTHUSED ABOUT THE EXTENDED WARRANTY SCHEME HE COULD OFFER WITH THE SECONDHAND CAR...

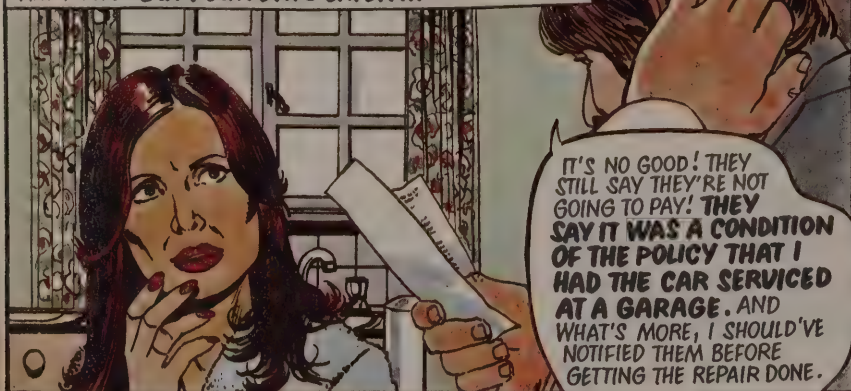
YOU MEAN, IF SOMETHING GOES WRONG, I'LL GET IT FIXED FOR NOTHING?

IT'S THE COMPLETE ANSWER, MR. JONES. COVERS YOU FOR REPAIRS FOR TWO WHOLE YEARS.

BUT BREAK DOWN HE DID...

HERE'S THE GARAGE PICK-UP TRUCK. WE'LL SOON BE ON OUR WAY...

MR. JONES IMMEDIATELY SENT OFF A SECOND LETTER, TELLING HOW HE'D SERVICED THE CAR HIMSELF REGULARLY, AND WITH THE GREATEST CARE. HE EVEN ENCLOSED RECEIPTS FOR THE VARIOUS ROUTINE SPARES HE'D BOUGHT AND FITTED. **BUT FOUR DAYS LATER...**



IT'S NO GOOD! THEY STILL SAY THEY'RE NOT GOING TO PAY! THEY SAY IT WAS A CONDITION OF THE POLICY THAT I HAD THE CAR SERVICED AT A GARAGE. AND WHAT'S MORE, I SHOULD'VE NOTIFIED THEM BEFORE GETTING THE REPAIR DONE.

ANGRY, MR. JONES RETURNED TO THE CAR DEALER'S.

SORRY, CHUM, NOTHING TO DO WITH ME. YOUR ARGUMENT'S WITH THE WARRANTY PEOPLE, INNIT.

BUT...

THIS TALE isn't from a strip cartoonist's imagination. Such things do happen. With the proliferation of extended-warranty schemes in Britain over the past five years, there have been many get-rich-quick merchants offering secondhand and new-car buyers protection against mechanical failure. But, as in all insurance contracts, it isn't what safeguards are promised that matter, but whether the claims made against them can be met.

Yet extended-warranties, when they are

backed by the full resources of a recognised insurer, are an extremely attractive and worthwhile proposition. Often, for between £30 and £50, a motorist can indeed ensure that he will not have to face hefty and unexpected repair charges for anything up to three years.

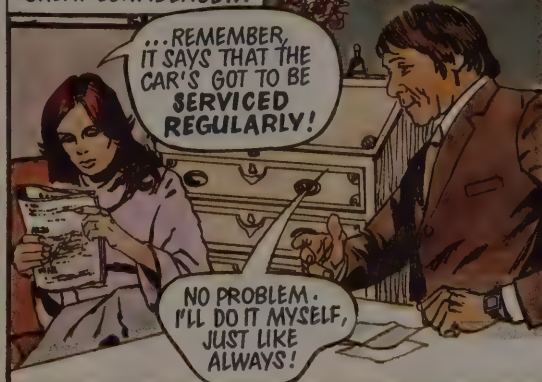
For a car dealer, like the man in our picture-story, the advantages of offering a used-car warranty package can be even more attractive. For he can expect to sell any vehicle that much quicker if he can

attach a two-year parts and repair-cost warranty to the sale... and, of course, all he needs to do to cover the cost is to add it to the purchase-price of the car, or get his money back by allowing for it in a part-exchange deal.

But a dealer rarely has either the resources or the knowhow to underwrite a warranty agreement himself. So in most cases a warranty company is behind the deal, with the car trader simply getting commission on each policy that he sells,

OF COURSE, IT DIDN'T MEAN THAT AT ALL. BUT IT DID LOOK AS IF IT COULD SWING A SALE—AND THE DEALER GOT COMMISSION ON EVERY SCHEME THAT HE SOLD. HE WASN'T GOING TO DRAW ATTENTION TO THE SMALL-PRINT EXCLUSION CLAUSES. GET THE 'PUNTER' TO SIGN ON THE DOTTED LINE AND PART COMPANY WITH A £40 PREMIUM, AND HE WAS HAPPY...

MR JONES BOUGHT THE CAR, SIGNED UP FOR THE TWO-YEAR WARRANTY SCHEME AND WENT HOME WELL PLEASED. AS HE TOLD HIS WIFE, THE WARRANTY GAVE HIM GREAT CONFIDENCE...



...REMEMBER, IT SAYS THAT THE CAR'S GOT TO BE SERVICED REGULARLY!

NO PROBLEM. I'LL DO IT MYSELF, JUST LIKE ALWAYS!

NEXT MONTH...

GIVING IT THE ONCE-OVER FOR YOUR HOLIDAY?



GOT TO. THE WARRANTY PEOPLE INSIST ON IT. BUT ANYWAY, WHO'D WANT TO BREAK DOWN ON THE WAY TO THE COAST!



SORRY, MATE, HAS TO BE THE BEST PART OF FIFTY QUID...

R MIND, DO IT. INSURED AGAINST KNOCKDOWNS. GOT TO BE THE CAR ON OUR HOLIDAY.

THE CAR WAS REPAIRED. THE BILL WAS £48. MR JONES PAID IT, AND THE HOLIDAY SAVED. BACK HOME AGAIN, HE WROTE TO THE WARRANTY COMPANY, GIVING DETAILS OF THE BREAKDOWN AND ASKING TO BE REIMBURSED UNDER THE TERMS OF THE CONTRACT...



IT'S FROM THE WARRANTY COMPANY... AND IT SAYS THEY'RE NOT GOING TO PAY UP!

WHY ON EARTH NOT...?

THEY SAY THEY NEED PROOF THAT THE CAR'S BEEN SERVICED REGULARLY!

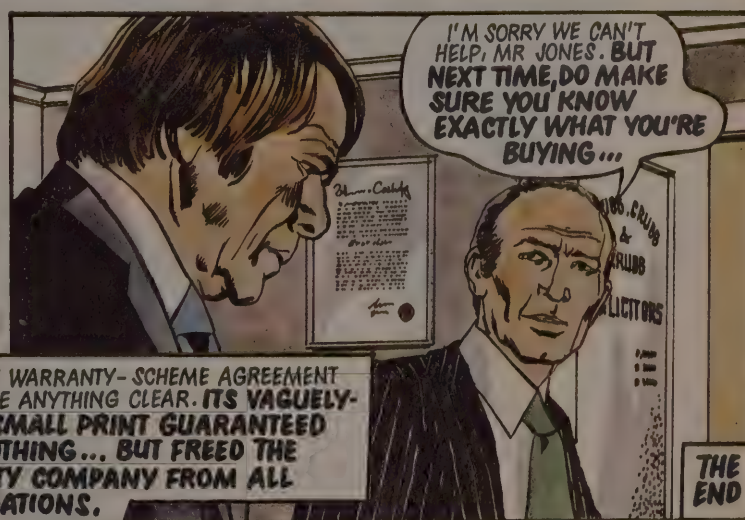


AND AT THE WARRANTY COMPANY...

EXTENDED WARRANTY MEAN TROUBLE FREE MOTORING

BUT NO ONE SAID I COULDN'T SERVICE THE CAR MYSELF!

SIR, I'M AFRAID THE AGREEMENT CLEARLY STATES...



I'M SORRY WE CAN'T HELP, MR JONES. BUT NEXT TIME, DO MAKE SURE YOU KNOW EXACTLY WHAT YOU'RE BUYING...

IN FACT, THE WARRANTY-SCHEME AGREEMENT DIDN'T MAKE ANYTHING CLEAR. ITS VAGUELY-WORDED SMALL PRINT GUARANTEED JONES NOTHING... BUT FREED THE WARRANTY COMPANY FROM ALL ITS OBLIGATIONS.

THE END

and accepting no obligations towards his car-buying customers.

The motorist, worried about future costs and anxious to get the best deal, very often sells himself the idea of a warranty scheme. But even if he takes the precaution to read carefully through the agreement that's put before him, and checks the clauses against the dealer's verbal assurances, hidden snags can catch him out.

He has no guarantee, for instance, that the warranty company has adequate

resources to meet any claim that may arise. And already several small-time outfits have gone to the wall, leaving a litter of broken agreements and thousands of disillusioned motorists with their premiums down the drain.

In the pioneering days, warranty schemes were usually a cover for promoting the sale of oil additives, one of their main conditions being that the product had to be used exactly as stipulated in the warranty conditions if the contract was to

be honoured. An early leader in the field, Revolution Oil International, has recently ceased trading.

More recently, warranty schemes have been beamed as much towards the new-car buyer, who wants to avoid massive repair charges after the manufacturer's warranty has run out.

It all sounds too good to be true: a component fails, and—hey presto!—you are covered for its replacement and labour costs. But in practice it's not so simple, for

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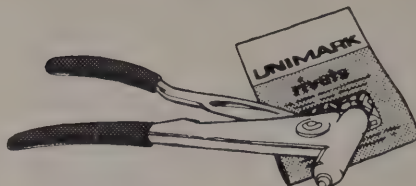


Bodyseal

Clean off the underside, then simply brush or spray on to keep salt and water out, stop rot before it can start.

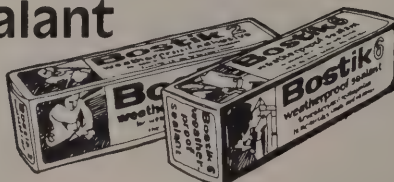


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extended-warranty agreements are not to be confused with maintenance contracts, which underwrite regular-servicing costs, provide maintenance inspections for a fixed annual payment, and sometimes (as in the case of central heating and domestic-appliances maintenance) even include the replacement of worn parts.

The reputable warranty company, conversely, makes servicing *demands* on its client, and will certainly want to ensure as far as possible at the outset that the car is mechanically sound, insisting that the warranty be sold by an equally repu-

table garage or that an inspection is carried out by an engineer of its choosing. And, when a claim arises, it may want to inspect the failed component, possibly disallowing a claim if it decides that wear and tear was the cause of the breakdown. Some companies, while not covering wear and tear, will cover breakdowns caused by worn parts.

Inevitably, disputes arise—a motorist may justifiably argue, for example, that a malfunctioning starter motor has broken down due to a defect, while an inspecting engineer may insist that it has failed because of normal wear and tear—and the difficulties in settling differences can be daunting. Goodwill is required on both sides, but, if a company repudiates a claim, the motorist usually has little redress.

It follows that the most contentious aspect of the extended-warranty business is, therefore, the number of exclusion clauses that are built into agreements. Some companies also use woolly language that the motorist has no chance of understanding or interpreting—and, with so many inhibiting conditions attaching, ranging from impractical instructions for regular servicing to regulations stipulating when work on a broken-down vehicle can be authorised, it is clearly essential that he be able to grasp exactly what is involved.

Nor is it usual for one company's list of requirements to be identical to that of another; there may be variations in the period of cover; some may demand extra premiums to cover components such as alternators and starter motors, carburetors and water pumps; others may deny the owner the right to service his own vehicle, insisting that it be maintained only at the garage that supplied it...

Most companies decline to deal direct with the motorist; they prefer to conduct business through a network of dealer-agents. And nearly all companies restrict cover to certain mileage and age limits.

One company is seeking to attract only owners of large cars, offering protection through garages selling prestige vehicles. There is even an 'executive' warranty scheme for cars in the Rolls-Royce/Mercedes-Benz bracket: major component failures are covered up to a maximum of 100,000 miles, and the warranty period extends for seven years or 80,000 miles. This last also includes the cost of rental for a replacement car during the breakdown period—up to £12 a day for seven days—but most companies demand an extra premium for this 'bonus'.

Inevitably, it's at the cheaper end of the market that the list of exclusion clauses is often a lot longer. Budget schemes may exclude the first £10 or so of any repair to discourage small claims.

Competition between the warranty companies is so fierce that premiums are often deliberately kept unrealistically low. One of the reasons why many small operators have gone bust is that they have been too busy harvesting their crop of clients to give attention to getting their sums right.

Some newcomers—such as the AA's own

Motorsure, and several motor manufacturers who provide cover on their own models after the expiry of the normal warranty—offer more realistic terms: they usually charge more, but they can guarantee more, because of the considerable resources they have behind them.

The Department of Trade is still trying to decide if there is a difference between warranty cover and a contract of insurance. Whether, eventually, it will step in and insist on an official 'code of practice' to be operated by the warranty companies will obviously depend largely on how many satisfied warranty clients there are at the end of the day.

Repudiated claims are bad, not only for the motorist but also for the reputation of the business. An attempt to bring order into chaos was made some months ago, when the Association of Motorists Protection Services was formed to impose uniform standards for extended-warranty operations. But at its inaugural meeting, where members were to discuss plans for a 10-point code, only 20 representatives turned up and agreement was not possible on common aims even among that relatively small number.

Meanwhile, the motorist, picking his way through what can seem like a minefield of promises kept and broken, can only look carefully at what is offered, read the terms in detail, and make his choice on the evidence of things seen and reputations jealously guarded.

ROLAND WEISZ

OIL—AND TROUBLED WATERS

The first Nigel Clarke knew that something was wrong with his Austin Allegro was while he was driving it to Hereford from his home at Walsall. What he was told by a dealer, some 400 miles later, would have made most owners wince: the diagnosis was worn synchromesh on third and fourth gears, and the most economical remedy was a new gearbox.

But Clarke was not in the least perturbed. True, his Allegro was secondhand. Granted, he had purchased it six months earlier and the garage's guarantee had expired. But he had the strength and security of an extended-warranty scheme around him.

On 4 February last year, he sent off a claims form together with the other requirement—receipts for services that had been carried out. The crunch came five days later, when the company—Revolution Oil International—rejected Clarke's claim on the grounds that one of the prescribed service intervals had been exceeded by 200 miles.

Clarke reminded the firm that its conditions in fact allowed a margin of 200 miles, but any hopes that the matter would be cleared up swiftly were soon dispelled. In that case, said the company, the claim is repudiated because you drove 400 miles after the fault became apparent...

When further correspondence failed to produce a change of heart, Nigel Clarke appealed to the AA for help. Its first step was to produce technical evidence that the 400 miles had made no difference to the component, which, it was stressed, was already beyond redemption.

Several weeks later, the firm replied that it was now turning down Clarke's claim because he had been 'only barely in time' when putting in the necessary oils.

In no uncertain terms, the AA made it clear that this was an entirely irrelevant and invalid reason for repudiation... and, at the end of another week-long delay, the company announced that it was now rejecting the claim because Nigel Clarke had not reported the gearbox trouble within the seven days required. This was at once disproved by the AA with the aid of recorded-delivery receipts.

Finally, eight months after the gearbox had first played up, and after further correspondence and argument, the company declared that since Clarke had had the car repaired without its authority it was not obligated under the warranty. 'In the circumstances', however, it would pay 45% of his claim.

Worn down by the war of attrition, and unwilling to cause extra delay by taking the company to court, Nigel Clarke accepted.

Final word from the AA: 'This was obviously a carefully conducted campaign of delays, and the case is typical of many that the Association has had brought before it over the last year.'

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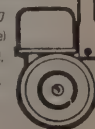
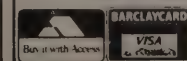
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AUTOMOBILE ASSOCIATION

IT'S GREAT TO FEEL YOU BELONG.



WHAT'S NEW

At the flicks

THEY SAY it's the really *simple* ideas that make money. And Polaroid must be hoping to prove that so with its new Polamatics—sunglasses that darken and lighten literally at a flick.

Aimed at sportsmen and motorists, they're Polaroid's so-simple contribution to the debate about changing light levels and the speed (and safety) of adjustment of photochromic lenses.

Photochromic lenses change chemically, in response to varying intensities of ultra-violet radiation, to find a suitable 'light transmission density'; Polamatic sunglasses feature one pair of glare-eliminating, shatter-resistant lenses, backed by a *second* pair that rotate through a small arc in response to a finger-flick of a sliding bar built in to the frame, to act as a 'glare valve' to increase or decrease the amount of light reaching the eyes.

DRIVE put a pair of Polamatics to the test and found them comfortable and effective, if a bit Heath-Robinsonish in appearance. The lens switchgear on the lightweight metal frame works well; and, of course, Polaroid's famed elimination of glare is a safety feature. There remains, however, the equally well-known disadvantage that they pick out the 'zebra stripes' in zone-toughened windscreens.

In brown, grey or grey-blue; £16-£20.

Spectra Products has introduced a new range of easy-to-apply hazard-warning safety paints. Supplied in a 350g, £1.95 aerosol, the fluorescent 'Spectra-Glows', in red or yellow, are intended to be sprayed on to the underside of a car boot lid, the bottom edge of a lift-up tailgate, motorcycle crash-helmets and mudguards—any surface that traffic can see.

Spectra's aerosol white primer is recommended as an undercoat to provide maximum brilliance.

About as hefty as a good torch, the Flatmate is a 12v, DC air pump, operated either by plugging into the car's cigar-lighter socket or clipping straight on to the battery. It can inflate a tyre to 35psi in about five minutes and handle low-pressure blow-ups such as airbeds and footballs with ease—simply by removing the high-pressure converter.

Cleverly, it is impossible to over-inflate a tyre dangerously. But leaving the high-pressure screw in place might produce too much pressure for a rubber boat.

Made in Hong Kong, the £15.39 pump is distributed by Pipsey, of Colgate, Sussex.

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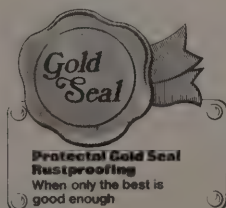
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SO YOU WASH and splash, and you soap and rinse, and finally you leather dry. And what do you get? A car that's bright and gleaming, just like it should be. The cost—a lot of water, a little washing-up liquid, and half-an-hour's work.

What more could you want?

Well, you could buy one of the five million-or-so tins of polish that cross Britain's car-accessory counters every year, and you could start to rub all over again. And what will you get? A car that's bright and gleaming, just like it should be. The cost—about £1, and another hour's labour.

What more could you want? Well, you could join the 40,000-odd motorists who each year send their cars off for professional polishing, a 'long-term' solution to the war against grime. The cost—anything from £15 to £40.

And the purpose of all this? *Protection*, say the washers: as well as making a car look nice, a fortnightly wash protects it against corrosion and paint damage from road dirt and dust.

Protection, say the polishers: a once-yearly waxing plus regular washing gives even greater resistance to dirt and dust. *Protection*, say the professional polishers: a single treatment plus regular washing will guard your coachwork for anything up to three years.

But in reality, which job, six months from now, if you don't lift another cleaning finger, will be giving your car the most paintwork protection...?

The answer, in the unemotional words of the AA's technical services department: 'The only effective protection remaining after any of them will be... the paint itself.'

Twelve popular brands of car polish, and compounds used by three major companies that offer professional car treatments, were put to the test by the AA—tests that showed that the little protection they gave lasted, at best, 24 weeks. And that protection, scant as it was, depended on subsequent regular washing.

Any owner who gives up soap and water in the belief that his car's paintwork will be protected by any of these polishes for long periods could actually end up worse off.

And the same goes for the commercial processes. The Endurst company's Arma-glaze treatment, for instance, which costs £30 on average, won't protect a car's coachwork for more than six months of the three years promised. And the effects of its £25-on-average Ziebart equivalent, Enviorgarde, could be negligible for one-and-a-half years of the minimum two

COVER STORY

Secrets of the wax museum

years that the manufacturer quotes . . .

It's estimated that UK motorists spend £5million a year on car polishes and a further £1¼million having cars gleamed by The Big Three—Endrust, Ziebart and Clay Bodyshield—and, in advertising, all polish makers and professional polishers alike emphasise the *protective* qualities of their products and treatments.

No one disputes that polishing a thoroughly-washed car restores showroom lustre. But if a car is washed from new in accordance with its manufacturer's recommendations, the chances are—as even one Envirogarde branch-manager admits—that no deterioration in its gloss will be noticed for possibly three years or even longer, depending on the area and the conditions in which the vehicle is run.

However, the results of a DRIVE survey suggest that making their cars sparkle is *not* the main reason why motorists buy polish. Of those who do—three out of every four asked—73% say that they polish to *protect the paintwork*.

(Though it could hardly be a protective instinct that makes at least three of DRIVE's owners 'polish' their cars frequently with Car Plan's T-Cut—an abrasive restorer that, because it removes a thin layer of paint on each application, obviously should be used sparingly.)

Two used T-Cut once a month, the other every two months, clearly believing it to be a conventional polish. To be fair, T-Cut makes no claims about protecting bodywork. But then neither do the directions warn that the contents are abrasive.

More to the point, however, what about the boasts of long-lasting protection made by the polish manufacturers and the professional treatment firms?

This is what the companies claim . . . and how the AA's experts answer back:

Envirogarde 'A tough shield which will protect your car's paintwork for years to come.' AA: *What is 'years to come'?* Two years? On the evidence of our tests, it'll be gone after six months.

Bodyglaze (part of the Clay Bodyshield rust-protection group; average £30 per car) 'One treatment will last at least a year.' AA: *At least this claim is only 50% out . . . Ours lasted six months.*

Armaglaze 'The diamond-hard car beauty treatment that lasts! Under normal conditions you need not wax or polish your car for at least three years.' AA: *It is, of course, arguable whether you need wax or polish at all. Our findings show that you'd have to Armaglaze every six months.*

A spokesman for CFT Rustproofing, of Southampton, which specialises in the Armaglaze process, and the manager of Roy Owen Engineering, of Cosham, Hants, which does Bodyglaze, both claim that their respective offerings also protect paint from stone chipping.

John Stubbs, the metallurgist who supervised the AA tests, responds: 'Like polishes bought off the shelf, the average thickness of the protective film applied by a commercial process is less than one-thousandth of the thickness of the paint.

How it can be said that this will protect coachwork from stone chipping is beyond comprehension.

'There is no reason to suppose that the wax is any better at protecting the metal than the paint. On this basis, the value of the polish film is negligible.'

As for the DIY products tried . . .

Super Turtlewax 'Plates car finishes with a brilliant "hard shell". Year-round protection. Shields like an invisible garage. Contains "Sun Stop" which shields your car from ultra-violet ray deterioration. Tested and proven in Death Valley at 135deg F.' AA: *At least the 'invisible garage' claim stands up: we couldn't find any evidence of protection after six months.*

Simoniz GT Wax The blurb on the tin

SO HOW DO YOU MEASURE POLISH?

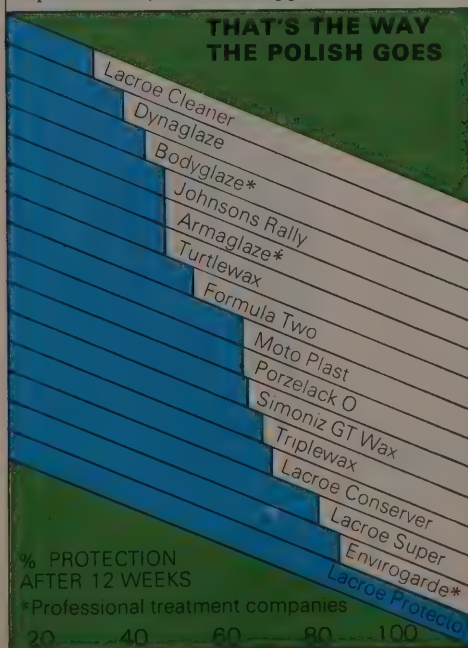
AA engineers set out to measure how well variously polished surfaces repel water. Water on a waxed surface will form droplets—the more wax on the surface, therefore, the smaller the droplet. Before that, however, the engineers had to set up scrupulously fair laboratory conditions.

First, they made up two sets of steel-plate sections—one covered with an automotive cellulose, the second painted in red acrylic. The finishes were allowed to harden fully for six months.

Next, they applied the polishes and commercial treatments exactly to each manufacturer's specification, one to each kind of panel, and placed the samples alongside untreated panels, inclined at a set slight angle on a laboratory roof.

The treated and untreated panels were taken down every two weeks, washed in water and leathered dry. After each wash, a special instrument applied a measured droplet of de-ionised water to each panel from the same distance and angle, so that its radius could be recorded.

Taking measurements every two weeks for six months, and comparing the results against the untreated panels, the engineers were able to determine the durability of each polish and treatment. Their 'league table' of polish, taken at the halfway stage of their experiments (12 weeks), appears below.



points out, commendably, that 'wax can protect your car's bodywork only while it's actually there'. AA: *But by suggesting that the product 'stays on and on, and protects your car longer' it could tease the unwary into imagining that it is more durable than, say, the year-round protection claimed by Super Turtlewax. It isn't.*

Dynaglaze 'Solid protection. Protects your car for many months from atmospheric pollution, road grit, salt, insects, bird droppings, etc. A second coat gives additional protection.' AA: *If you interpret 'many months' as meaning 24 weeks, then the claim is justified. After 12 weeks, however, the amount of protection remaining is less than that of 10 of the other 11 polishes tested. And there is no advice to users about washing the car first.*

Triplewax (Car Plan Automotive Chemicals): 'Considered the ultimate in present-day car body care technology. Protection to match.' AA: *If it is the 'ultimate', then the implication, again, is that it lasts longer than Super Turtlewax. It doesn't.*

Porzelack O: 'Diamond-hard solid wax. Year-round protection.' AA: *A wax is no harder than a candle—how can it be diamond-hard? Also, like Dynaglaze, there is no direction about washing the car first.*

Formula Two (K-Tel International): 'Far longer-lasting than ordinary car polish. Seals and protects the paintwork with a guaranteed year-long mirror gloss.' AA: *We'd like a look at the guarantee . . . !*

Moto-Plast (Sherwood-Parsons Automotive Products): 'The plastic overcoat. Full 12-month protection.' AA: *From what, after the first six months?*

Rally Car Wax (Johnsons Wax) 'Long-lasting protection against all types of weather, traffic film and corrosive salts.' The tin also bears a message which no other polish in the survey carries—'Can be applied all year round.' AA: *Yes, it can. But that doesn't mean that the protection will last all year, too.*

Lacroe Products Four of this firm's treatments were tested: the abrasive *Cleaner C*, a non-abrasive *Auto Conserver*, *Protector* and *Super*. All boast paint protection 'free from damage by salt and air pollution', and the company guarantees 'the protective qualities' of all its products. It also declares that 'You will not find a better car protection' than *Cleaner C*. In fairness, it makes no claim about durability, but it does say that, if used correctly, its products provide 'impact-proof protection' and leave 'a "diamond-hard" wax-adhering skin'. AA: *Ask yourself—would a thin veneer of polish prevent paint damage from a stone travelling at, say, 40mph?*

The AA's overall conclusion on the durability of the off-the-shelf polishes and of the compounds used by the specialist firms is that none lasts more than six months, and at the end of a 24-week period none of the surfaces polished and regularly washed by them offers any more protection than untreated panels.

Of the thickness of the protective film achieved, the AA comments flatly: 'Most of the polish is removed on the cloth, and

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BACKED BY FORD



EATING OUT C'est bon?

THE MOST curious item I have ever encountered on a menu was *Rosbif de Veau alla Inglese*—the speciality of the day in a small restaurant in Padua, Italy.

It was years ago, and neither my companion nor I had more than schoolboy French; our Italian was non-existent. We were able to deduce, however, that *rosbif* was a French interpretation of good old English roast beef...

But when the dish was served it proved to be not beef but roast veal, and by the time we came to the last course—*Cis*, which turned out to be a phonetic spelling of cheese, served with biscuits—we concluded that we had stumbled on an astonishing international menu.

French has long been the accepted international language of the kitchen and restaurant as well as of the *corps diplomatique*. It is necessary in cases where terms simply cannot be translated conveniently, such as *hollandaise*, *mayonnaise*, *bouillabaisse* (*Tournedos Rossini* would need a paragraph to describe it on a menu written in English), though sometimes in France you do see English creeping in—*Les sardines sur toast* or *Les Mince Pies*, for instance.

But if a menu is written in French, the French should be correct; in Britain, usually it is not. Hors

d'oeuvre is usually spelt wrongly: it never has a final 's', even if there are hundreds of them.

It may appear trivial, but a proprietor with pride in his restaurant will go to trouble to see that his menu is correct, too.

Incidentally, it used to be fairly commonly accepted in France that, if you found a menu outside a restaurant printed in purple ink, it was a sign of good food inside. The reason was that the proprietor used a cheap, home-printing kit to produce his menus, preferring to spend his money on quality ingredients and good cooking.

ROBIN WILLIS

McTavish's Kitchens

George St, Oban, Strathclyde (tel 0631 3064)

and High St, Fort William, Highland (tel 0397 2406)

Owned by the brothers Inglis (don't ask me where McTavish came in), and run with great flair and expertise, McTavish's menu includes Scottish specialities such as haggis and neeps, venison, salmon, trout and raspberries. There's an admission fee of 85p for the floorshow—dancers, piper and singers (you can watch without eating)—and a good dinner for two will cost £8-£10. House wine starts at £2.90.

Banner Restaurant

Little Minster St, Winchester, Hants (tel 0962 67212)

Another new, bistro-style restaurant (opened nine months ago) with pine tables and chairs, this one offers a good choice of starters and salads, an excellent cold table and at least two hot dishes daily. The extensive French wine list starts at £2.40 a bottle, and includes palatable house wines at 40p a 6oz glass. A substantial meal and a drink for two should leave change from £5.



Snap judgement

DAVID JOHNSON was driving at a snail's pace down a narrow lane to the edge of a lake at a Hampshire beauty spot. In the back seat, Johnson's dog, Sandy a Teddy-bear of a mongrel whose cuddly appearance belied his fierce disposition—panted in the heat. With the temperature soaring, Johnson wound down all the windows of his Cortina before continuing to inch past cars coming the opposite way.

But, as Johnson stopped to let a larger car squeeze by, its driver reached in through a side window to give Sandy an affectionate pat.

An Englishman's home may be his castle, but Sandy's castle was the ageing Cortina. He eyed the extended arm, decided it belonged to an intruder, and grabbed the man's cuff. Instinctively, the stranger pulled back sharply, leaving a tattered shred of shirt between Sandy's teeth.

Shaken by the unexpected attack, the man spluttered: 'I'll sue you for that! That beast shouldn't be allowed out.'

It took 10 minutes of Johnson's smooth talking to calm him down.

Fortunately, the chewed driver had second thoughts. But would he have had a case for suing?

'Knowing of the dog's unfriendly

attitude to strangers, Johnson should have had the sense to keep the back windows wound up,' says the AA's head office legal department. 'But, strictly speaking, Johnson was probably safe from being sued, since the actions of the other driver clearly made him a trespasser.'

'Section 5 of the Animals Act 1971 expressly provides that a trespasser shall have no remedy in law for damage caused to him by an animal kept on premises—and that may include cars—provided it was not kept as a guard dog, or, if it was, that it was reasonable to keep it there for that purpose. What's more, the Act also clearly excludes liability where any damage caused by an animal is due "wholly to the fault of the person suffering it".'

'However, this doesn't mean that the Act gives total immunity to the owner of a fierce animal in all circumstances. If, for instance, a small child pats a dog and is savaged, the owner would be guilty of creating a dangerous situation with possible consequences he should have foreseen. And if Johnson's dog had reached out to bite a passer-by, he could have been liable for considerable damages under Section 2 of the Act if it could be shown that he knew it to be a fierce animal.'

Motorists, therefore, need take care to keep a dog under reasonably proper control in the car, even though it may mean keeping windows up, or at least only partly open. Remember, too, that an insurance policy will not normally cover such risks, so a prudent pet-owning motorist could be advised to take out extra cover to safeguard himself.

After all, one day Sandy might bite the precious hand of a famous concert pianist...

a considerable amount of the freshly-applied deposit that is left evaporates within a few hours.'

And of their protective qualities: 'On sound paint, where the surface is intact, there is no improvement in protection. In the case of old or deteriorated paint, however, the benefit could be considerable—if temporary.'

(The Association also warns that, in the event of a paint touch-up being applied to an area that has been treated with a silicone-based preparation in the last six months, a 'pinholing' effect could result from the wet paint refusing to 'take' on the remnants of polish.)

As the chart on page 39 shows, measurements taken by the AA 12 weeks after polishing show that the most and least durable products both come from the Lacroe stable. The second-best is Envirogarde—well ahead of its commercial-process rivals Armaglaze and Bodyglaze, which are rated equal 10th and 13th.

Of particular interest is the professional treatment firms' admission that the bulk

of their business—more than 40,000 vehicles a year—is on new cars, *despite* the assertion that it can take three years or longer for most owners to recognise dulling, and *despite* the advice of most car manufacturers that polish is really only necessary once a car loses its 'new' look.

In addition, the manager of a south-of-England agency for one of the big three

pro-polishers actually tells DRIVE that, in his view, there is no difference between what he is offering and ordinary polish bought off the shelf.

All of which suggests convincing lines of sales-talk from new-car dealers bent on increasing commission rates... although one Volvo dealer admits that, while he urges the Envirogarde process for new black models, he never advises its use on other Volvo colours.

The most telling view, perhaps, comes from Bill Page, general manager of the automotive division of International Paints, which supplies Ford, BL, Vauxhall and Chrysler.

'I would never put polish on my cars,' he says. 'It just isn't necessary in the three years or so that I keep them. Today's car paints are high-bake durability systems which, in themselves, provide far greater protection than a polish ever can...'

The answer, it seems, is simply to wash and to splash, and to soap and to rinse, and finally to leather dry. But this is where we came in.

ROY JOHNSTONE





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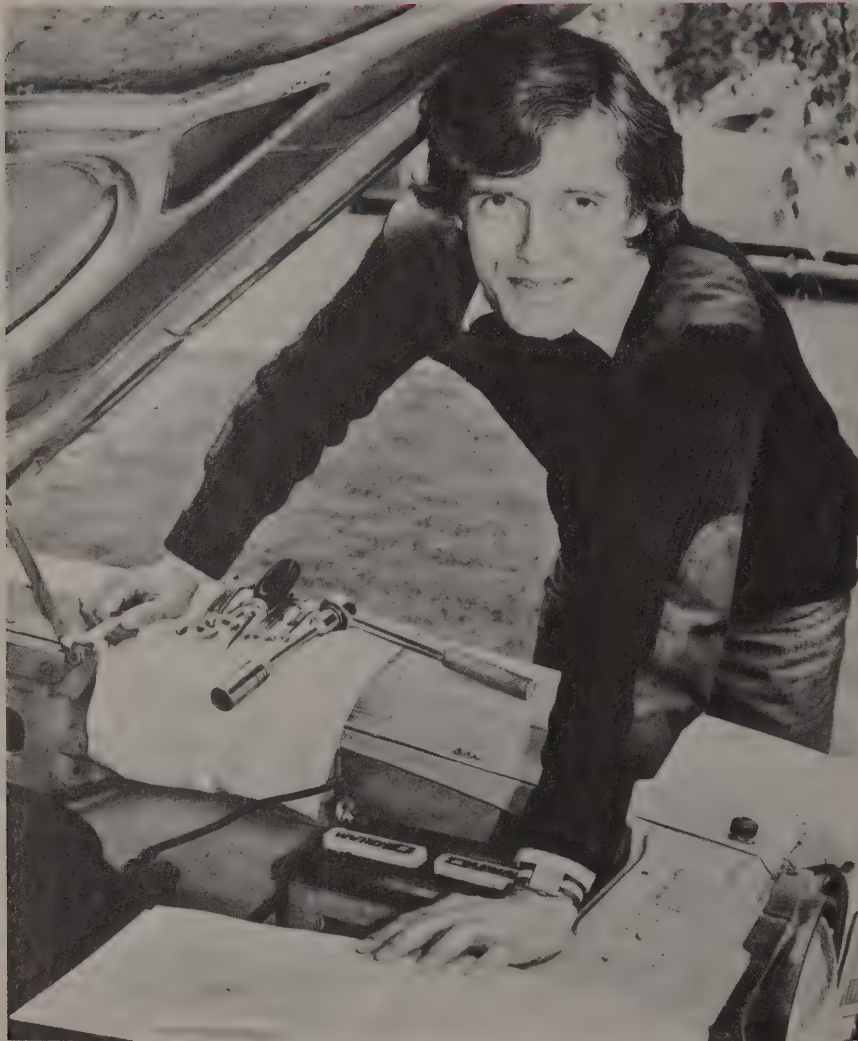
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Clinic

Any problems? Whether they are technical, insurance or legal, DRIVE's experts can help. Write to: Clinic, AA, Farnham House, Basingstoke, Hampshire RG21 2EA

Can't catch her

My 1½-year-old has already learnt how to release the catch of her Britax Star Rider safety-seat, and she can crawl out of the harness no matter how much I tighten it. What can I do? Is there a harness that has a really childproof catch?

—L MATKINS, LOWESTOFT

All child safety-seat catches work on the same principle as the Britax's; they are deliberately simple to undo because, in an emergency, someone other than the parent may have to release the child, and there may be no time to work out an ingenious combination.

Britax says that there is an easy answer: children just have to be disciplined to stay put! That's obviously not as easy as it sounds, but here are a couple of hints.

Make sure your child is well raised up in her seat, so that she can see out the windows and forget the

catch. And—a bit of psychological warfare that may be worth trying for a couple of weeks—every time she escapes, the car should magically stop and refuse to go until she is once again firmly secured. Children very soon pick up the association, and a car that refuses to budge is no fun at all.

Acid comment

Why do some rust-removers have to be washed off before paint is applied, while others can just be left to dry?—H BAILEY, WALSALL
Most proprietary rust-removers contain phosphoric, tannic or hydrochloric acids, or are a mixture of all three, and are designed to 'eat' the rust. To wash or not to wash depends on the strength of the solution and the degree of corrosion:

it may be necessary to prevent acid attack on sound metal and on the new paint—see DRIVE Autumn 1972, 'The rust eaters'.

Spirited away

My car has just been given a full underbody sealant treatment—over-full, in fact: surplus sealant drops from the sills on to the garage floor and, more seriously, on to the tyres, from where it is spattered over the paintwork as I drive. How do I remove the offending marks?—L PIKE, TEDDINGTON

We have found the best and kindest way of removing sealant without damaging the paintwork is to soak a soft cloth in white spirit and apply it gently to the affected areas, allowing time for the sealant to

soften, then repeating to clean off the stains and finally polishing with a dry duster. Use white spirit, too, to clean the tyres, but petrol is good enough for the drips on the garage floor. Be sure, however, to keep the garage doors open while you're working, and don't smoke!

LUV 1S... a cherished number

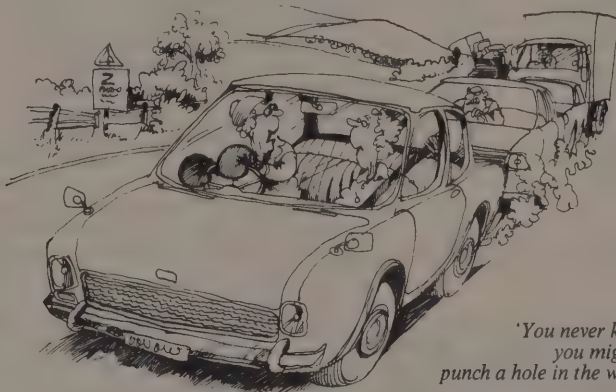
My six-year-old Renault has a rather nice, low-number registration plate, which I'd like to sell. What is the law on transferring vehicle numbers, how is a 'swop' done, and what does 'CNDA member' mean?—ROSEMARY COX, HARROGATE

First, you have to understand that it isn't the number that can be sold—it's the vehicle to which it is attached. So either you have to sell your Renault, or you have to buy a moped, have the number transferred to it, then sell the moped. The 'rules', briefly are as follows:

The 'donor' vehicle—the one bearing the number—must have been registered to the applicant for at least three months, be licensed, and be available for inspection by a local vehicle-licensing office inspector.

The 'recipient' vehicle—the one to which the number is to be transferred—must either belong to the applicant or be the subject of an application to register it in his or her name. Like the donor, it has to be licensed and inspectable.

You cannot transfer a number



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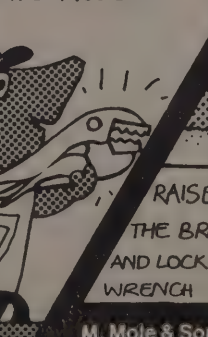
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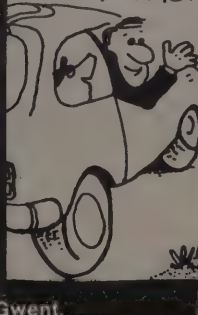


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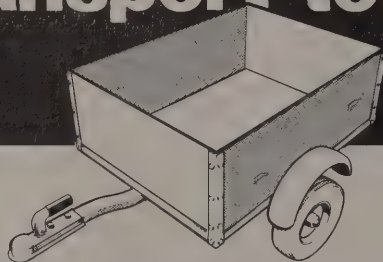
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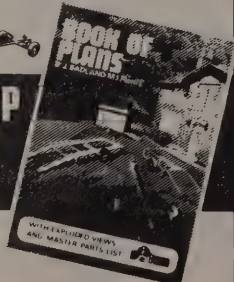
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from a goods vehicle or a public service vehicle, nor if it has a year suffix and the vehicle to which you wish to transfer it is older than the number. But, if all is well, you can get the necessary forms from a local vehicle-licensing office, the transfer will cost you £50, and you can advertise the number privately or answer one of the ads in the press.

CNDA? It stands for Cherished Numbers Dealers Association, one of several organisations dealing in transfers. There are pitfalls, though: DRIVE March-April 1976 publicised some of the rogues and the rackets. You must be careful.

Naturally gas

I read more and more about cars having 'gas-filled dampers'. What advantages do these have over hydraulics?—P JENNER, SIDMOUTH Several. They are better sealed, so are less prone to leakages and loss of efficiency; they are less susceptible to heat fade when the going gets rough; and they have better-controlled compression and rebound characteristics, which means that they can be individually-tailored to suit a model's suspension and tyre set-up. This isn't to say, however, that because gas-filled struts are groomed to suit one car's ride and handling they will necessarily suit yours. They may not, so take professional advice.

Licensing laws

How long does an endorsement remain on a driving licence? And is it true that the offence of dangerous driving has been abolished?—B WILLIAMS, LEEDS An endorsement now remains on a licence for four years, except in the case of a drink offence, which remains for 11 years. The offence of 'dangerous driving' was abolished on 1 December 1977—but that doesn't mean dangerous drivers go scot-free. Nowadays they are called 'reckless' drivers, and the penalties have been increased.

Over the odds

My neighbour does simple servicing jobs for me—checking tyre pressures and oil and water levels, and seeing that the battery is topped up. Recently, however, my nephew offered to look over the car, and he said that both the sump and the battery had been overfilled. He corrected the faults, and said not to worry. But could permanent damage have been done to the car?—MRS J WHEELER, PLYMOUTH

It all depends on how much is too much. If the sump was overfilled by more than a pint, the crankshaft could have been dipping into the oil and beating it into a froth. And, as aerated oil robs the bearings of a sound coating of lubricant, that could lead to long-term problems—main-bearing oil leaks, and oil-filter contamination on some cars. But that's looking on the black side. If your oil level is now correct, and

these symptoms have not yet appeared, you should have no worries.

Overfilling the battery can lead to excessive gassing, betrayed by white salts on the top of the battery and down the sides of the case. These will cause paint-staining and, in a short time, body rot, so should be washed off without delay. Overfilling can also dilute the electrolyte, so it is wise to have its specific gravity checked by a garage.

Strained relations

A recent serious accident left me blessing my seatbelt, and, when I had my car repaired, I followed the recommendations of both the belt manufacturer and the AA by having a brand-new one fitted. But when I included the cost of it in my insurance claim, I was told that my insurer wouldn't pay since I had no proof that the belt was damaged.

With courts reducing accident damages in cases where motorists were not wearing seatbelts, surely it is in the insurance companies' interests to do everything they can to encourage belt wearing?—G HARDER, LEEDS

Most insurers will be sympathetic to a claim for belt replacement, especially if you are prepared to argue. AA experts say that the only way of assessing the extent of damage is to test to destruction... which rather defeats the object.

In any accident other than a minor bump, a belt will be strained, and that may reduce the elasticity of the webbing. Further use could actually cause injury in another accident, or, worse, the belt could fail completely... and the end result could well be a higher claim.

Hot reception

The May-June DRIVE carried an advertisement for the BI-FI internal car radio aerial system, which works off the rear-window heater element. Has DRIVE tested this particular gadget?—J HOUGH, NEWCASTLE

The AA carried out an evaluation of the BI-FI system a couple of years ago, comparing it with a standard aerial, both fitted to an Austin Allegro. Used with a conventional AM radio, the BI-FI works well in both town and country—just like a normal car aerial, in fact. Electrical switches, particularly the indicators, cause momentary interference, but this can be minimised by closely following the maker's instructions.

When the car is running and the rear-window heater is working, a certain amount of 'hash' (wide-band radio interference) is noticeable, which may not be acceptable to some listeners. But, of course, the heater should be used only for relatively short periods. Different types and sizes of rear-heater elements may give different results, but BI-FI should still give a satisfactory account of itself.



MOTOR SPORT

Compleat motorists

route may be 2000 miles across country, and the spectating, in the main, is free.

Does this make rallymen the poor cousins of the GP stars? No, far from it. Some of the big rally teams run on budgets similar to those of GP teams. The difference is that the major rally teams are prestige operations run by the car manufacturers—Fiat, Ford, Saab, Toyota, Datsun—which cheerfully foot the bills in the interest of promoting sales.

Ford, for example, hires three of the best rally drivers in the world for its factory team: Björn Waldegard from Sweden, and Hannu Mikkola and Ari Vatanen from Finland. Each will earn in excess of £50,000 a year in return for a talent that enables them to bounce a car at full throttle over craggy, loose-surface forest tracks at twice the speed you might think possible.

Running a three-car team in an event such as the East African Safari can cost a factory more than £120,000, with vehicles being serviced from light aircraft with which they have a radio link. But when a team wins, this is

a tiny investment against the visible peak in the sales charts.

Rally drivers' talents are seldom appreciated as they thunder through forests at night or miles of open bush or tundra on the classic overseas events. A five-day event may take a month out of their lives, for they will go out and recce for weeks at a time, covering the whole route and making detailed notes of the stages and difficult sections.

In fact, your average rally star is a much more compleat motorist than his Grand Prix opposite number. He will be able to drag his car from a ditch; fix up his front suspension with fencing wire; drive in reverse to the next control point; beg, borrow or steal parts to get to the finish.

He'll sleep rough, often not at all, for days at a time. And all for a first prize of maybe £1000—the sort of fee that a GP man will want for simply opening a motor show!

Being a rally driver is more than being a . . . driver: it's being a super mechanic, an adventurer, a linguist, a grown-up boy Scout. Every event is a

tough, high-speed initiative test.

The top performers in each sport have a quiet regard for each other, but they won't publicly admit to it. Rallymen often refer to the GP men as 'lounge lizards'; GP men put down rallyists as drivers who can't do their job without someone beside them.

On some classic rally events, the route is secret and no recce is allowed. This means that drivers go 'blind' through forest stages, never knowing what lies around the next corner.

And that's where you see high-speed car control performed to a nicety—a rally car on a loose shale surface, driven in anger by a professional, has the smoothness and fluidity of ballet. Lesser performers look like Fonteyn doing the same job in wellies.

Vic Elford was the only rallyman ever to convert successfully to Grand Prix. Various GP men have performed well on odd outings in rallies, but none has made a permanent transition. Proving that rallying is to Grand Prix racing what football is to rugby.

NICK BRITTON



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CAR TESTS

Choose your partners for the automatic two-step! Prima donnas of the driving seat will tell you that the only good auto is a big one, but the experts know that you don't need long legs for fancy footwork. To prove the point, we asked three slim 1600cc rivals to put their best feet forward—Toyota's Carina, Fiat's Supermirafiori and Volvo's 343. All do a merry dance, but which leads, and which follow?

Toyota Carina auto

Price £3695 On the road £3795



FLATTERED FORD—IN THE SINCEREST FORM

One could be forgiven for entertaining a suspicion that the similarity in both sight and nominal sound between the Carina and Ford's Cortina is less than coincidental. For Toyota is a kind of Ford with slant eyes—the biggest motor manufacturer in the East and the third-biggest in the world.

So it's all the more curious that Britain is the only country where Toyota takes a back seat to its arch-rival Datsun.

The model it hopes will change all that is the Carina, an established saloon that has been revamped specially for a European market that's gasping under the onslaught from the East.

DRIVE chose the automatic version of the Carina to discover if Toyota's world-beating ingredients have been remixed to a dish that will suit British tastes and pockets.

How it goes

There's nothing to excite the experts in the Carina's specification, with a simple overhead-valve engine putting its power on the road via the rear wheels. The automatic choke ensures prompt cold starts, but it's inclined to

stay in business too long and even to switch itself on when it isn't needed—after a short stop, for instance. The cure is a quick 'blip' of the throttle. Once running, the 1588cc unit is impressively smooth, with an even tick-over.

Like many Japanese cars, the Carina runs happily on 2-star petrol, which makes its already-respectable fuel-consumption figures look even better: DRIVE's auto recorded an overall 27½mpg. Brisk cross-country trips yielded a fair 27mpg, yet a very light accelerator foot stretched this figure to only 31½mpg. In town, the figure slumped to 22mpg, and even that worsened with hard driving in heavy traffic.

In contrast to the Fiat, the Carina's automatic gearbox swallows enough energy to make it a significant drain on engine power. With a well-designed auto box there is no extra performance to be gained by resorting to manual selection. Not so the Carina: auto kick-down gives a 0-60mph time of 16.1sec, but, when the driver chooses the change-up points for himself, this can be cut by a full second. Flooring the accelerator and leaving the auto box to its own devices, the Carina changes from low to 2 at 5000rpm (33mph) and from 2 to Drive at 5600rpm (63mph). Experimentation showed that the car was in fact willing to press on to 6300rpm (71mph) for the latter change.

Using part-throttle, DRIVE noted that the Carina is keener to hang on to the higher gears at any price rather than change down, but, like most automatics, it has

no difficulty in coping with the 1-in-3 test hill.

Our testers found little to commend in the Carina's selector design, with drivers asked to push a button to drop manually from Drive to 2. And it's downright crude that there's no stop between Drive and Neutral; it's easy for the selector to overshoot Drive and go straight into Neutral—producing a disconcerting scream from the engine.

Apart from this embarrassing noise, body-boom sets in between 50 and 60mph, which is wearing for front-seaters and even worse in the back. Axle whine at 40mph spoils the otherwise mechanically refined progress. Try drowning it with the radio that Toyota throws in as standard...

Many manufacturers use suspension parts similar to Toyota's struts and coil-sprung live rear-axle—but, while most work well in concert, the Carina's ensemble still needs a lot of tuning. The under-damped ride makes a fuss on any surface rougher than a billiard table. The nicest thing to report is that the ride in the back is better than in the front...

There are no worries about the

Everyman Report

The Carina got a very mixed reception from DRIVE's amateur testers:

'I thought the acceleration was good,' said Sandra Spencer, a 29-year-old teacher from Basingstoke, Hants. 'I liked the brakes too—they're sharp.'

Insurance broker Roy Kidman, 55, from Weybridge, Surrey, found that the manual selector moved smoothly, too: 'The kick-down jerked, and sometimes it didn't work, so I had to use the manual over-ride.'

Sussex company director David Everest, 30, was less impressed: 'The Carina must be the nearest thing to an average car—it isn't diabolical—just indifferent.'

Essex sales rep Glenn Shipton, 22, voted the Carina the most comfortable of the trio—despite complaints about the backrest. 'It's still my best buy.'

car's handling, though: on corners, it merely runs steadily wider as speed increases, stepping back into line as soon as the power is cut.

When will the Japanese acknowledge a European preference for positive steering with some 'feel' of what the front wheels are doing? So far only the more-advanced, fwd Honda Accord is steering this course; the Carina still features a much-criticised recirculating-ball system. It feels sloppy, and unnervingly vague when pointed straight ahead. It does come into its own in parking, though, when the variable-rate system takes the strain out of wheel twirling.

The Everyman Panel liked the brakes, but never had to use them in a real emergency. The professionals found them so over-servoed that a hefty stomp on the leftfoot pedal could produce a slide. The initial response to check-braking is sharp, and the best stop of 96% comes at a far-too-light 35lb pressure. Brake fade is a problem, too, albeit not as exaggerated as on previous Toyotas; the efficient handbrake gave a useful 38% best stop.

Inside story

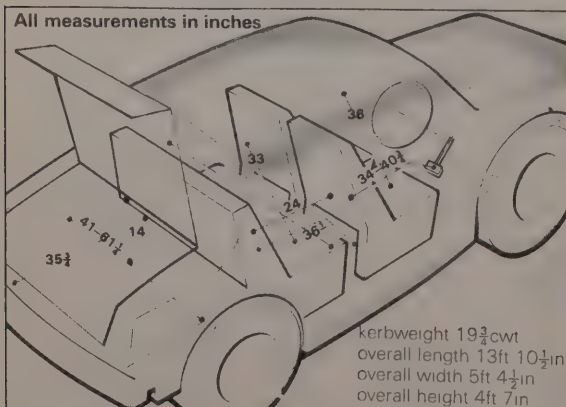
With so many adjustments available on the Toyota's driving seat there would seem to be little chance of failing to find a comfortable position, yet testers did complain—one of a hard 'bar' in the small of his back, another that he could not get the seat back sufficiently erect. Fore and aft movement is average by Japanese standards, and easy; the cushion has tilt-adjustment, too. Happily, most drivers come to terms with the comfort level.

The steering wheel, while being well positioned, has the usual rash of horn buttons, forever being pressed by accident.

Four dials, for engine temperature, speed, fuel and the time of day, are clearly visible. The speedometer was accurate at 70mph, but read 28mph at 30mph. Six warning lights, which include a brake-failure signal, can be partly masked by the driver's left hand, but are big enough to signal their presence when they're really needed.

The two crisp-action stalks on the steering column are a joy to use; lights and indicators are on the right, British-fashion, with the wash/wipe control on the left (2-speed with a useful intermittent setting).

As a family holdall, the Toyota isn't a patch on the spacious Ford Cortina, although it does measure up against the Fiat Supermirafiori in DRIVE's test trio: knee and legroom in the back is hardly generous; head-



room is limited; and some passengers' heads touch the rear screen. Front-seat occupants can stretch out.

For odds and ends, there's a shallow parcel shelf and a reasonable glovebox that cannot be locked, but the driver has to make do with the centre console for storage. The roomy boot has a high sill that hinders the loading of heavy objects, and its single-skinned walls look vul-

nerable to sliding objects. The boot also houses the spare wheel, which will stay clean, although you do have to empty all the luggage to get at it.

Heating and ventilation is the familiar Japanese package, with light-up controls and a recirculating setting. Heat is spread evenly round the footwells, but it is difficult to achieve a cool head as well as warm toes. Rear-seat passengers' feet are not left out in

the cold—full marks for that. With the heater off, cool air for warm-weather motoring is adequate, provided you can tolerate the noise from the fast-fan setting; on its slowest speed the fan gives a happy whistle...

On the safety front, the Toyota Carina does tolerably well: seats are securely mounted; head restraints are standard; door latches are crash-proof and their child-proof locks look well

designed. While the facia appears well prepared for an accident, one interior drawback is the lack of roof padding on some nasty cross-bars. The passenger's inertia-reel seatbelt on the test car kept locking up when it shouldn't have, and its buckle chafed, possibly maladjustment. The fuel filler is hidden behind a lockable flap, but the tank, aft of the rear axle, does appear vulnerable to a rear-end crunch.

Light fantastics

Living together

Toyota makes a reasonable effort to rustproof its products, and it certainly does the job better than some producers not a million miles from Dagenham, Essex. A sturdy-looking layer of bitumastic compound is applied, but misses too many places—Toyota fills gaps with a wax spray which was holding fast on the test car but didn't look a good long-term prospect. Wheelarches are well shaped to avoid mudtraps—half the anti-rust battle.

There's plenty of trim that could, in time, be a starting place for surface rust, but it is so well fitted that decay should be years away. Meanwhile, they will protect the car from parking scrapes, and, if the paint does suffer, Toyota thoughtfully provides a tin of touch-up paint.

Paintwork is well finished, albeit with an orange-peel effect on some panels.

DIY fans needn't fear this foreigner: Toyota no longer gives you enough tools to open a shop, but it is still ahead of some European rivals: you get a wheel-chock, pliers, wheelbrace, plug spanner and double-ended screw-driver. Jacking points are helpfully mapped on the jack itself.

Up till now, the Carina has depreciated at 7.44p per mile, making it more expensive to own than either the Volvo or Fiat. Insurance companies rate it as a fairly expensive Group 5 risk—about two groups higher than British-made rivals from Ford and Vauxhall.

Some Japanese car makers still have a long way to go to catch up with the best in Europe, but the gap is always narrowing. The Carina won't appeal to a discerning driver, but there will be plenty of owner-drivers happy to live with it for its good quality control and reliability.

It's a package that impresses in the showroom, but, after 21 days of test-driving the Carina, we find it difficult to understand fully how such a mixture of blandness and mediocrity comes to be in such enormous world-wide demand.

But then lots of people can't tell margarine from butter...

John Perkins

Fiat Supermirafiori auto

Price £3853 On the road £3963



CAGED BEAST... OR JUST A CAGE-BIRD?

Winning the family motorist's allegiance often starts with wins in the world of sport—not Formula 1, but the rough-and-tumble of rallying. Fiat has been winning both laurels and valuable publicity in the rally game with its Mirafiori Abarth, powered to victory after victory by an ultra-hairy, 2litre, twin-cam engine pushing out more than 200bhp at 7000rpm.

Now it is hoping to cash-in on that experience and prestige, harnessing a scaled-down 1600cc version to a road-going saloon in an attempt to give the Mirafiori model range the sort of desirable image that Lotus gave Ford's Cortinas in the 1960s.

Enthusiasts know that a twin-cam engine provides plenty of muscle with—in theory, at least—fuel economy. Others maintain that twin-cam units are expensive to build and noisy to sit behind. DRIVE's test car—unlike the Supermirafiori of the advertisements—arrived to settle the argument without a cage. And it didn't look as if it would turn on its handlers...

How it goes

Fiat's tamed road-going car unleashes less than half the power of the rally version—96bhp at 6000rpm—and the fuel is delivered by a twin-choke carburettor, not injectors. It fires easily on a cold morning, although the automatic choke tends to idle the engine at 2000rpm, making for a jumpy take-off: the solution is to cut out the choke by stabbing the throttle. The warm-up period is short and untemperamental.

The Supermirafiori may not have the super blend of performance-with-economy of Fiat's pushrod 1600, but the automatic returned 26mpg overall—reason-

able, compared to the less-lively Toyota Carina's 27½mpg. Round town, it gave 22mpg, and managed a fraction better with hard driving in heavy traffic, but nowhere did it approach the economy of the Volvo 343.

If this twin-cam isn't frugal, it's certainly fast, and it simply loves to rev—6500rpm on the tachometer feels good, and the best acceleration times are achieved that way: 0-60mph in 13.8sec, for instance. Alas, both tacho and handbook prohibit such a practice, with maximum revs restricted to 6000rpm; left to its own devices, the automatic box changes up at a coy 5500rpm, with the results you can see in the tables. But even that still leaves the Carina struggling at 40mph, with the Volvo panting even farther behind; a 30-50mph overtaking spurt beats both of these rivals by around 2sec.

DRIVE's one criticism of the Fiat's excellent automatic gearbox (the same GM box, incidentally, that you'll find in Vauxhalls) is that the gear-shift markings are still positioned for lefthand drive, making them hard to read from the right. Barring that, it's a lesson in how it should be done,

with unrestricted movement between 2 and D, and (unlike the Carina) a stop to prevent you overshooting D and ending up in Neutral. It always changes gear imperceptibly, and (again unlike the Carina), mild accelerator depression induces a down-change at speeds up to 36mph—helpful when hill-climbing or wanting to overtake smartly. Full throttle produced a down-change all the way up to 62mph. There was an irritating buzz from the gear change of the test car, which was finally tracked down to the selector's trigger mechanism.

The Supermirafiori also shows just what can be achieved by 'tuning' suspension rather than by engineering innovations, with a conventional MacPherson-strut system at the front and a live axle and integral coil-spring damper units at the back—an extremely safe-handling combination. The car runs gradually wide of its intended course on corners as speed increases, but comes back into line gently if the driver lifts off the accelerator. There's no 'wolf in sheep's clothing' excitement, such as its predecessors provided.

Ride is among the best of rear-drive, live-axle cars—almost as good as the Volvo's and far ahead of the Toyota's. But high speed produces a queasy, up-and-down movement on any motorway marred by gentle undulations.

Early Mirafioris had a brake-servo that stood the car on its nose at a ridiculously light pressure. Fiat has responded to the criticism, but still has to produce a pedal that's both sensible and progressive. Worse, though, was the rear skidding that affected our lightly laden car—from 30lb pedal pressure. This caused one or two 'moments' on the road, with the tail wagging out to cause panic correction. Fade is a problem, too, so DRIVE, on balance, was unimpressed.

Inside story

The test car's pale-blue interior, with powder-blue, crushed-velour upholstery, didn't impress

everyone. Neither did the Fiat seat-designer's assumption that all drivers have short legs and long arms. Only the vertically adjustable steering column redeemed the situation.

Instruments are easy to read through the padded, one-spoke steering wheel. The speedometer, set oddly on the left, is calibrated in 20mph increments up to an optimistic 120mph, the tachometer is on the right, and, in the middle where the speedometer should be, is a quartz clock, fuel gauge with low-level warning light, and a temperature gauge. Instrument lighting can be dimmed by a rheostat.

Minor functions are located on three column-mounted stalks: windscreen washers and wipers are controlled by the righthand one; there's a short indicators stalk on the left; and, behind that, a longer light-control stalk. Newcomers found it easy to operate the lighting stalk in mistake for the indicators, and the wipers leave a blurred triangle on the right of the screen, even though

Everyman Report

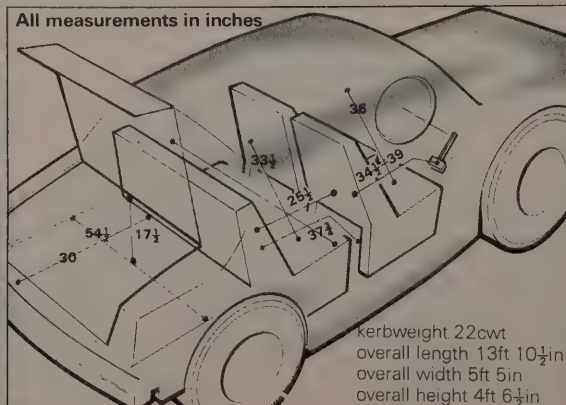
The Fiat started its Everyman tests with a price handicap, and its luxury wasn't enough to win all the panel's votes.

Sandra Spencer didn't like the way the head restraints obscured her rear vision. She faulted its blue/brown colour scheme, and found the seatbelt 'so uncomfortable that I wouldn't wear it.'

Roy Kidman agreed with Sandra about the colour scheme, and declared the Fiat's steering 'too heavy. The brakes were good, though, and the car drives quietly with no wind noise.'

David Everest discovered that the steering column was adjustable when he drove over a humpback bridge: 'It moved! I found the driving position terrible.'

Glenn Shipton was the only one who liked the Fiat's blue interior—though he couldn't get comfortable. 'The car felt quick—even if it did make a lot of noise doing it.'



they have been converted to right-hand drive. Headlamps were ineffective on dipped beam.

The well-upholstered seats proved as comfortable as favourite armchairs, and only our taller testers wished for more legroom. Front seats are concave at the back, to create more knee-room for rear-seat passengers, and lateral support in every seat is good, backed-up by solid-looking head restraints.

The height of the rear seat steals some headroom, but it makes access easy for the less agile. Rear legroom is marginally better than that in the cramped Carina, and it's surprising to find that the seatbelt reels are not hidden in the centre door pillar. It's even more surprising when passengers try to open the doors by pulling out the ashtrays...

Storage space is in short supply. The novel, sliding-hatch glove-box cannot be locked, and there's a small bin in the centre console and pockets in the front doors only. The boot can be opened with or without a key, its only shortcoming being a high sill to frustrate the loading of heavy cases. It is well carpeted and illuminated—which will be little comfort if you have to resort to the spare wheel, hidden as it is in a well under any luggage.

Engineers used a laser to study the frequency of body resonances and silence any noises from the engine, back axle, steering column and exhaust mounts. The result is impressive, but, on the test car, the factory-fitted optional sunroof could have done with the laser's attention: more often than not, it was a source of infuriating wind howl, even when it was shut tight.

On paper, the heating and ventilation system looks impressive, with separate circuits for cold and heated air, and eight outlets, including fresh-air vents at each end of the fascia. Like the latest Rover, front side-window demisting is achieved by blasting heat through ducting in the doors.

In practice, the booster fan is noisy—though powerful—and the hot-air distribution is patchy.

Safety-wise, our testers approved of the head restraints fitted at front and back; the seatbelts are efficient, though lap sections tended to ride up; and, apart from the hard top of the wind-screen surround and the sharp-looking parking disc in the driver's sun visor, Fiat has done a good job in padding the roof.

Living together

With plastic bumpers and stain-less trim, Fiat has taken another step towards long-term body beauty. Underneath, there's protection with lashings of

petroleum-wax compound, and plastic shields give the front wheelarches a longer life by keeping out mud. Rustproofing of the box sections tends to be patchy—some thoroughly treated, others missed altogether.

Fiat has always had a good reputation for paint appearance, but the quality on DRIVE's sample could have been better. There were more paint 'nibs' than usual, some orange-peel texturing and even small cracks where rust was already making itself at home.

Apart from spilling some oil on the engine block during routine topping-up, we found the access to most service components easy. Translucent reservoirs make life simple, and nice underbonnet touches include an electric cooling fan and headlamps that can be adjusted simply to compensate for heavy loads—very neat. There's the usual roll of Fiat tools, poorer than some, better than most.

Ownership costs could be less than the Toyota's, and about the same as the Volvo's.

The more you drive the Supermirafiori, the more you get to like it. It's the sort of car that seduces you subtly over a couple of weeks' motoring until you are sold. And that reveals Fiat's problem: how can any ordinary buyer take a 1000-mile test drive?

Certainly, if someone else were paying the bill, the Supermirafiori would be on DRIVE's short-list of cars we would like to drive every day. If it is your own chequebook, though, there is plenty of competition.

Decisions, decisions...

Volvo 343DL

Price £3550 On the road £3633



BELTS WITH SAFETY—BUT IS IT VOLVO?

There is a kind of driver who takes a childish delight in the simple, pragmatic logic of a car driven by a rubber band, as in the now-defunct DAF. There is, too, the worthy motorist who demands the strength of the Volvo company around him before he turns a wheel. And this is where the Volvo 343 leaps—or lumbers—in.

The 343 is a hard car to categorise. About the same exterior size as a Marina or Avenger, it is more comparable to a Cortina or Maxi inside, with an unfashionably-sized engine midway between the two. Nor do you get much choice: it's a three-door only, with the DAF-type stepless automatic transmission, a Renault engine and a sophisticated suspension carried over from the DAF 66.

Does the mix work?

How it goes

In theory, there's a lot to be said for a transmission that keeps fussy, inflexible petrol engines running at the uniform, middling revs where they work best. Yet in practice, Volvo/DAF's continuously variable transmission (CVT) is criticised for this very reason by drivers who are used to

a rising engine note as they accelerate.

The 343 feels more sluggish than it really is. But there is a *real* lag, too, between stamping on the accelerator and waiting for the pulleys to adjust, giving poorer acceleration than a clever cog-swapping 'conventional' automatic transmission.

On the other hand, the 343 proves just as spry as the not-so-clever Toyota Carina from 30–50mph, and anticipating overtaking needs by pressing a down-change switch beside the gear lever knocks off another second from this overtaking time. Of course, using more engine power than this Renault-derived 1400 can muster would help, too; but it is doubtful whether the present drive belts could handle much more without compromising their *maximum* life of around 30,000 miles—a replacement job that, at 1978 prices, will cost around £50 plus labour.

The car can barely handle a 1-in-3 hill start (unlike most automatics, which shine under such tests), and there's still a slight jolt and delay when pulling away from rest. Like old manual gearboxes with no synchromesh on first, hasty selection at rest

can also cause noisy 'gear' grating. One just has to learn how to avoid these unpleasant characteristics.

Our car was a slow early-morning riser, even in summer. But, once it had fired, it gave no more starting trouble all day, and in town use had a lot going for it, with no automatic 'creep' in traffic hold-up halts, and an extremely tight turning circle.

Never really quiet—there's always a 'busy' sound from under the bonnet—the 343's engine note is seldom wearying either, except, unfortunately, around a true 70mph. It sounds fine again at 75mph—but that's illegal in Britain.

Fuel consumption looks quite respectable in the context of the 343's performance and accommodation, and we even detected small but general improvements in this revised 1978 car, most pronounced in cold-start town driving. The modest tank has an over-cautious low-level lamp, but at least it fills easily almost to the brim, and its plastic threaded cap is most acceptable.

If the 343 is merely respectable in performance, thirst and how it sounds, it is distinguished in how it moves and handles. Sophisticated de Dion rear suspension is generally approved of in principle but avoided in practice because it costs more than a simple live axle (Rover abandoned de Dion on its new models, despite its success in the 2000). Yet its theoretical advantages shine through on the 343, making it a noticeably better-handling and more shock-absorbing car than its bigger Volvo relatives, not to mention Toyota Carinas.

Mind you, it's not an alert, sporty-handling car—steering response and general cornering attitude feel too sedate for that. Yet it has remarkable cornering poise that will not be shrugged off-course by bumps, and its even weight distribution carries it through fast corners so well that it is difficult to tell which end of the car is doing the driving. Slightly flurried and under-

damped with a light load, the 343 really gets on top of its job over bad ruts or with a full load.

Likewise, the brakes are exemplary in ordinary use. Not for Volvo a 'showy' servo to stand the car on its nose at pedal-stroking pressure. Instead, an ideal 70lb shove gives a full-blooded 100% best stop, yet without any apparent strain; and if you push a bit harder, you still get the same excellent result. If only heat-fade and a mild susceptibility to water were overcome, the set-up would be perfect.

Inside story

Excellent door apertures and the clever, diagonally-tilting seat backs help greatly to ease rear passengers' access. Once inside, they also find a surprisingly roomy back seat, with particularly generous legroom.

The latest 343 front seats have Volvo's ladder-type head restraints which do not block totally the rear occupants' view like those in last year's test car; but we were still disappointed by the lack of lateral and lumbar support.

The previous confusion of push-buttons has been solved by a 244-style rotary lightswitch on the fascia, plus rockers. The clear instrumentation includes a six-digit odometer (a Volvo predilection), and is no longer permanently illuminated. A formidable row of 13 telltale lights are all symbol-marked, and the two column stalks work beautifully. In contrast, the fit and finish of the fascia moulding still has the mark of the competent amateur about it...

Extra ventilator outlets are welcome: output is now sufficient to prevent stuffiness with the powerful heater in use, and the outer pair can be set to direct demisting warm air at the door glasses while those at the centre cool the upper atmosphere.

The heated rear window needs no wiper—good aerodynamics and an efficient pair of rear mud-flaps keep it remarkably clean.

Apart from its high load sill, the

Everyman Report

The panel arrived to find a **DRIVE** mechanic struggling to open the Volvo's door. From there on, things got worse...

Sandra Spencer admitted: 'I expect something more from a name like Volvo. There's no impression of quality—especially when the selector handle comes off in your hand. In all, it compares poorly with the other cars.'

Roy Kidman found the pedals set too far to the left for his liking. 'The steering's nice, but, in general, I think the 343 lets Volvo down.'

David Everest found the novel transmission irritating: 'It's soul-destroying not to have any control over it and to hear the engine doing what it wants.'

Glenn Shipton didn't like the transmission either: 'All you get is a steady drone.'

hatchback facility is very sensibly conceived—the first time on a Volvo, if you discount the old 1800ES coupé. There's a carpet on the flat deck, and a courtesy lamp over it.

As you might expect from Volvo, the 343 scores a good tally in our safety checklist. Interior padding is still not perfect, however: the roof-reinforcement hoop can still be felt above the headlining; there are hard bars at shin level under the front seats; and the silly visor clips spoil the benefits of the properly protected top windscreen surround.

Living together

People for whom durability and safety are paramount rightly hold the name Volvo in high esteem. Yet the company's Dutch acolyte has given them some headaches, and our last test 343 reflected some quality problems. This latest car was better trimmed, and a switch to more-expensive flexible pvc undersealant makes rust resistance look more reassuring. Wax injection into box sections and chip-proof pvc painting along the sills are done reasonably well, but there are

still skimpy areas on the underbody, and items such as the bumper stoneguards and fuel tank remain untreated. The coachwork was well painted, though, and the bumpers are really capable of taking a bump.

We had to do several minor jobs to our low-mileage car to get it in good running trim, but the model is easy to work on under-bonnet, and many routine service replacements could be found at a Renault agent—at a push.

The handbook is helpful and explicit about minor maintenance chores, but DIY types keen to tackle 6000-mile servicing will need more information. The jack works and fits without undue grovelling or effort, but there are no other tools. The interior trim seems particularly reluctant to brush clean—hairs and grass are hard work. The exterior is a lot easier, with few moisture traps or chromed items.

A year ago the 343 looked positively pricey, but, for automatic fanciers, the current cost is now competitive, especially as it comes so completely equipped, with no hidden extras. Because of this stable pricing, loss of value has been fairly heavy, but, if Volvo can remain competitive, future depreciation should be favourable. Insurance is a quality-car Group 5.

We are not really surprised that the Everyman Panel got little joy from its brief try in this Volvo: it is an idiosyncratic car, and most of its nastier features show up straight away, while its qualities take time and familiarity to emerge. Yet they are there, make no mistake. The 343's suspension makes a Carina look sick (a Volvo 244, come to that, looks queasy, too), and its superior accommodation can be missed by those who just count doors.

Though not without merit, a belt-driven automatic is not the kind of car men dream about—even Volvo must recognise that—and widening its engine and gearbox options alone would undoubtedly widen its appeal.

TOYOTA CARINA auto

Front engine: 1588cc/4cyl, OHV (chain); one twin-choke carb; 75bhp at 5200rpm
Rear drive: 3-speed auto, 17.3mph/1000rpm
Suspension: front—ind MacPherson damper/struts, anti-roll bar; rear—coil-sprung live axle and Panhard rod links
Steering: recirculating ball, 4 turns/34½ft circle; 5J wheels, 165SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
automatic gearbox (exchange) £277.47 (fitting 3.6hr)
exhaust £73.59 (1.5hr)
headlamp unit £5.11 (0.3hr)
front bumper £25.15 (0.5hr)
laminated windscreen £38.34 (2.9hr)
oil filter and points £4.30 (0.8hr)
major service 6000 miles (4.0hr)

	per year	per mile
Running costs	£676.74	5.63p
Loss of value	£269	2.24p
Total depreciation	£893	7.44p
Insurance group	5	

FIAT SUPERMIRAFIORI auto

Front engine: 1585cc/4cyl, twin OHC (belt); one twin-venturi carb; 96bhp at 6000rpm
Rear drive: 3-speed auto, 18.8mph/1000rpm
Suspension: front—ind MacPherson damper/struts, anti-roll bar; rear—coil-sprung live axle, upper and lower trailing arms, Panhard rod
Steering: rack and pinion, 3½ turns/35ft circle; 5J wheels, 165SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
auto box £917.19, no p/ex (fitting 2.3hr)
exhaust £54.23 (0.9hr)
headlamp unit £23.19 (0.5hr)
front bumper £18.36 (N/A)
toughened windscreen £30.97 (N/A)

oil filter and points £3.76 (0.4hr)
major service 12,000 miles (3.5hr)

	per year	per mile
Running costs	£703.37	5.86p
Loss of value	£186	1.55p
Total depreciation	£826	6.88p
Insurance group	(provisional) 6	

VOLVO 343DL

Front engine: 1397cc/4cyl, OHV (chain); one twin-venturi carb; 70bhp at 5500rpm
Rear drive: variable auto, 16.9mph/1000rpm
Suspension: front—ind damper/struts, anti-roll bar; rear—semi-ind de Dion type, leaf springs, telescopic dampers
Steering: rack and pinion, 4¼ turns/29¾ft circle; 5J wheels, 155SR 13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £61.72 (fitting 2.2hr)
exhaust £47.20 (0.7hr)
headlamp unit (inc bulb) £30.27 (1.0hr)
front bumper £23.17 (0.6hr)
laminated windscreen £47.63 (1.8hr)
oil filter and points £4.95 (0.4hr)
major service 6000 miles (2.6hr average)

	per year	per mile
Running costs	£634	5.28p
Loss of value	£280	2.33p
Total depreciation	£820	6.83p
Insurance group	5	

THE RIVALS CLOCK IN

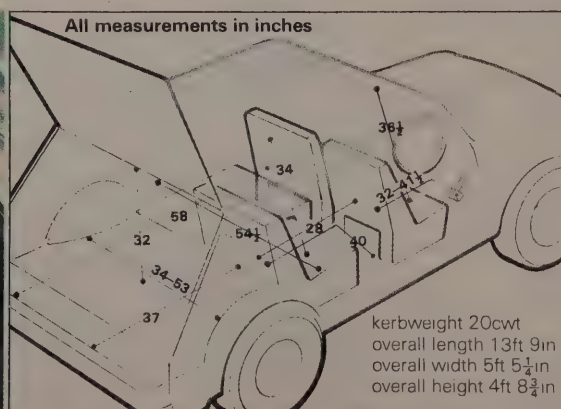
Vauxhall Cavalier 1.6 auto

Honda Accord 3-door auto

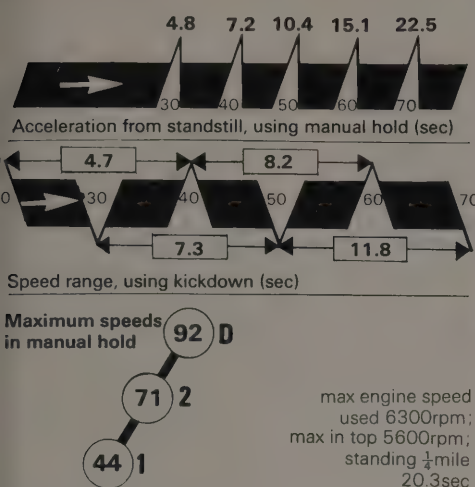
Chrysler Alpine S man

VW Passat LS man

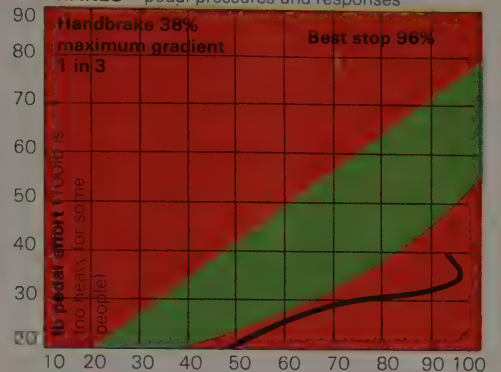
Ford Cortina 1600 man



PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 2-star/90 octane min
overall consumption 27 1/2 mpg
effective tank range 350 miles/12 1/2 gal

Normal range of consumption

hard driving, heavy traffic	21 1/2 mpg
short journey, suburban	22 mpg
mixed roads—brisk, 50mph cruising	27 mpg
motorway—70mph cruising	27 1/2 mpg
quiet rural—40mph cruising	31 1/2 mpg

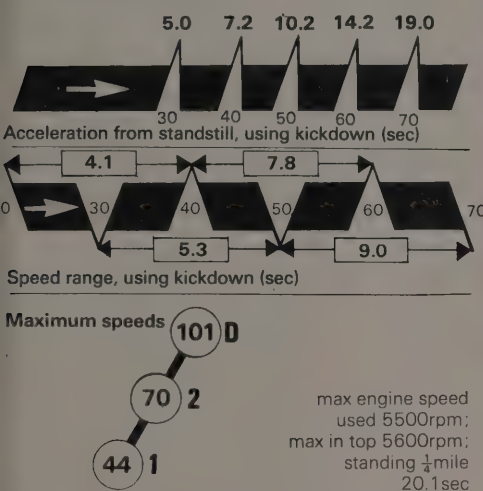
Consumption at steady speeds

30mph	47 1/2 mpg
56mph	33 1/2 mpg
70mph	27 1/2 mpg
max mph	17 mpg

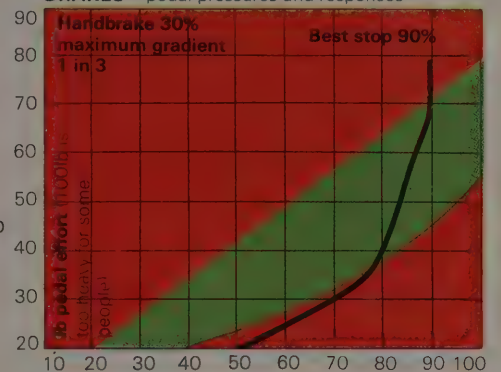
SAFETY CHECKS

steering: energy absorbing?	No	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	No
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	Yes

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 4-star/97 octane min
overall consumption 26 mpg
effective tank range 260 miles/10 gal

Normal range of consumption

short journey, suburban	22 mpg
hard driving, heavy traffic	22 1/2 mpg
motorway—70mph cruising	26 mpg
mixed roads—brisk, 50mph cruising	26 1/2 mpg
quiet rural—40mph cruising	30 1/2 mpg

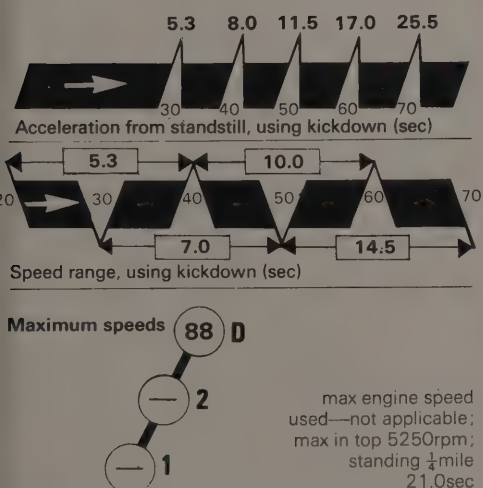
Consumption at steady speeds

30mph	37 1/2 mpg
56mph	31 1/2 mpg
70mph	26 mpg
max mph	15 1/2 mpg

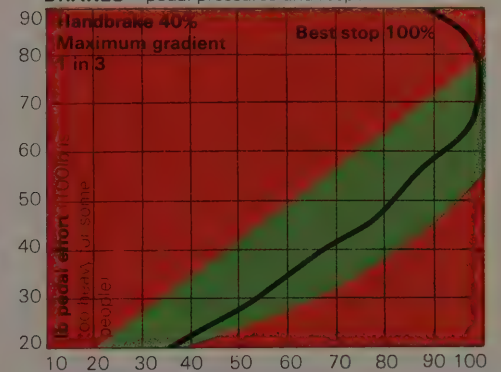
SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	No

PERFORMANCE



BRAKES—pedal pressures and responses



FUEL 3/4-star/96 octane min
overall consumption 30 1/2 mpg
effective tank range 275 miles/9 gal

Normal range of consumption

short journey, suburban	26 mpg
hard driving, heavy traffic	26 1/2 mpg
motorway—70mph cruising	28 mpg
mixed roads—brisk, 50mph cruising	31 1/2 mpg
quiet rural—40mph cruising	36 1/2 mpg

Consumption at steady speeds

30mph	50 mpg
56mph	35 mpg
70mph	28 mpg
max mph	20 mpg

SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	Yes	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	No

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
3609	1584	29 1/2	96	14.4	5.5 (k/d)	97/50	14' 7"	40 1/2	37 1/2	4 1/2/32
3890	1600	32	89	14.7	6.8	100/50	13' 6 1/2"	41 1/2	36 1/2	3 1/2/33 1/2
3783	1442	32	97	14.3	11.9	100/50	13' 11"	40 1/2	40	4/34 1/2
3920	1588	33	97	13.1	9.3	100/50	14' 1"	40 1/2	37 1/2	4/31 1/2
3556	1593	27	89	15.3	12.8	100/60	14' 2"	40 1/2	40	3 3/4/34

k/d—kickdown

SPAIN
AGAIN



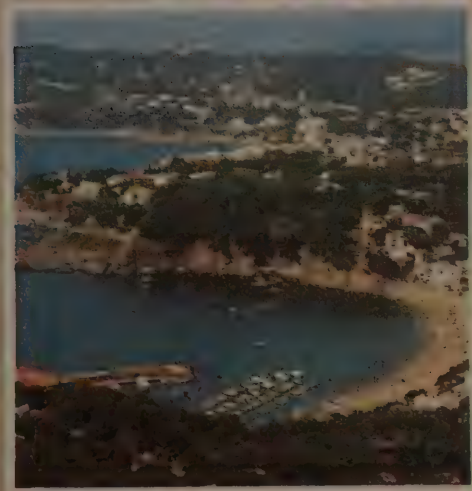
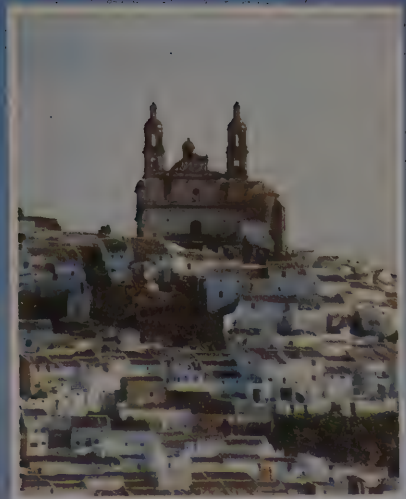
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Letters

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Money and roads

I was delighted to read **DRIVE**'s 'The end of the road?' (July–August)—delighted not because of the picture it painted, but because a powerful organisation such as the AA has at last brought the tragic case of Britain's roads out into the open.

Will there ever be a government that realises that vote-catching is not its main occupation? Will there ever be anyone with power and influence who realises that better, well-maintained roads make travel and transportation quicker, safer and cheaper, and aid the fight against inflation?

In West Germany, 60% of the duty levied on petrol and diesel is used every year on roads—in total, some £9000million, against the meagre £400million spent in the UK. On maintenance alone, the Germans spend £2000 per mile, each year, on single-carriageway roads of importance,

£6000 per mile on dual-carriageway trunk roads, and £11,000 per mile on M-way standard roads.

Not only this, the Germans construct roads with 10in surfacing, as against our 4in, and our average sub-base road-base thickness of 18in compares badly with their 2ft or more.

Road construction and maintenance may not catch votes at a general election, but a new, almost *revolutionary* roads policy is badly needed by our country. We should immediately spend at least £4000million.

The Germans do not spend more because they are better off: they are better off because they spend more wisely.

Paul S W Bryant
Chartered civil engineer
Northampton

Glass, darkly

In the World-wide column (May–June), you say that some car

manufacturers plan to produce models with fixed side windows. Well, I always have my car window wide open, whatever the weather, as even the Aeroflow ventilation in my Ford Cortina estate is unable to cope with the misting-up caused by my four Irish wolfhounds. And how could I ever leave the dogs in the car without an open window?

Since one in three British households owns a dog, I hardly consider myself to be in an insignificant minority.

Mrs A H Jupp
Uckfield, E Sussex

WCs—you say

Thanks for 'Behind Closed Doors'. I have written to numerous authorities complaining about their nauseating toilet facilities for travellers, and I am sure that most people would be happy to pay a fee to use hygienic loos. On holiday, we often had to stop at snackbars just to find a usable clean toilet.

I could say more, but your article says it for me.

A F Curran,
St Helens, Merseyside

... your report on the nation's lavatories confirms that Dan, Dan the lavatory man can no longer cope with the demand for hygienic toilets. However, help is at hand: my company's hygiene staff spend

their working lives preventing goodwill from going down the pan. We have surveyed 30,000 or so lavatories and done bacteriological surveys to show what risks occur in which areas.

Unfortunately, it will still be out of sight, out of mind, out of order until managements recognise their legal and social responsibilities to provide and maintain decent, hygienic facilities. Motorists can help by complaining.

Motorists of the world, unite. You have nothing to change but your loos!

Peter L G Bateman
Rentokil Ltd
East Grinstead, Sussex

Strong objection

The proposed ban on the use of high-intensity fog-guard lamps in conditions other than fog or falling snow is most disturbing. In the interests of road safety, I feel it is essential that drivers should use these lights in rain and water-spray. **DRIVE** and the AA should use their influence to prevent the passage of this legislation.

P W Gladman
Pentwyn, Cardiff
The AA has already criticised the proposals as being too restrictive, and has drawn attention to the advantages of high-intensity rear-guard lamps in heavy rain, particularly on motorways where spray presents a problem—Editor.

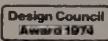
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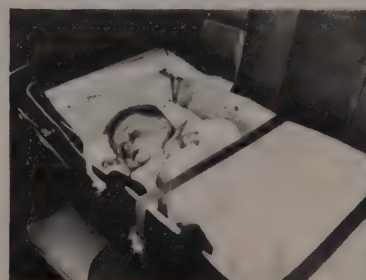
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Estate £12.30.*

*Recommended retail prices excluding VAT.

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For your free copy of "Great Little Breaks," please send to Wales
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Name _____

Address _____



HOTELS

Star wares

Alan Fenton took his family for a seaside holiday in a three-star hotel. His bill, at the end of a fortnight? Just under £600—more, he reflected, than he had paid for a new car not so very long ago.

It does seem to make a mockery of the hotel star-rating system: if this is what it costs to stay in a three-star establishment, who can afford four or even five stars?

When the AA started classifying hotels, in 1912, Three Star brandy was considered to be of a quality and a price to suit the average man's pocket and taste, and the idea was adopted as the basis for hotel classification.

This was a time, though, when food and labour were cheap. Most hoteliers and restaurateurs probably had never heard of terms such

as 'costing' and 'portion control'. A menu was drawn up and prices simply added, according to the style of hotel that was offering it.

Staff were outrageously underpaid between the wars—some were even unpaid, relying entirely on tips; there were even cases of employees such as doormen paying hotels for the privilege of opening carriage or car doors.

In the main, hoteliers now must pay respectable wages to their staff and cannot oblige them to work unreasonably long hours. But, naturally, customers must foot the bill.

Now, more and more 'average' families are forsaking the hotel for the guesthouse, the self-catering cabin and the campsite—a logical-enough step under the present pressures of the economy. But value for money can still be found in British hotels—not least in the one I have selected here...

ROBIN WILLS

★★ Fifehead Manor

Middle Wallop, Hampshire (tel Wallop 566)

Mrs Leigh-Taylor brings her native Dutch talent to bear in the kitchen of her tastefully-appointed country manor house, parts of which date back to the 11th century. There is also a gallery to visit, a horse to ride, and a lovely garden.

Double b&b from about £15

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INVENTION 1976



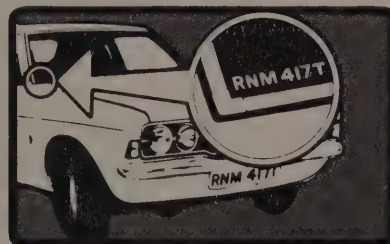
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because you enjoy a special reduced rate of interest exclusively arranged for AA Members.

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How much? How long? The minimum initial loan is £200 and normally repayment can be spread over periods up to five years and even longer for more costly home improvements.

All loans are subject to compliance with government controls, for example the maximum loan on a motor car is two thirds of the cost and the longest payment period is 24 months.

Apply now Below are tables at the current rate of interest which will help you decide on the loan which suits you best. Complete the application form opposite and post it to Mercantile Credit, FREEPOST, London WC2B 5XA...no stamp is needed. As soon as your loan is approved you will receive a personal cheque in a few days.

AA MEMBERS' LOAN MONTHLY REPAYMENT TABLES

Interest on amount of loan: 1-2 years - 10.5% flat for each 12 months 3-5 years - 11% flat for each 12 months

Amount of loan	12 Months True interest 20.5% p.a.			24 Months True interest 20.5% p.a.			36 Months True interest 21% p.a.			48 Months True interest 20.5% p.a.			60 Months True interest 20% p.a.		
	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.
£	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p
200	221.04	21.04	18.42	241.92	41.92	10.08	266.04	66.04	7.39	288.00	88.00	6.00	310.20	110.20	5.17
300	331.56	31.56	27.63	363.12	63.12	15.13	398.88	98.88	11.08	432.00	132.00	9.00	465.00	165.00	7.75
400	441.96	41.96	36.83	484.08	84.08	20.17	532.08	132.08	14.78	576.00	176.00	12.00	619.80	219.80	10.33
500	552.48	52.48	46.04	605.04	105.04	25.21	664.92	164.92	18.47	720.00	220.00	15.00	775.20	275.20	12.92
600	663.00	63.00	55.25	726.00	126.00	30.25	798.12	198.12	22.17	864.00	264.00	18.00	930.00	330.00	15.50
700	773.52	73.52	64.46	846.96	146.96	35.29	930.96	230.96	25.86	1,008.00	308.00	21.00	1,084.80	384.80	18.08
800	884.04	84.04	73.67	967.92	167.92	40.33	1,064.16	264.16	29.56	1,162.00	352.00	24.00	1,240.20	440.20	20.67
900	994.56	94.56	82.88	1,089.12	189.12	45.38	1,197.00	297.00	33.25	1,296.00	396.00	27.00	1,395.00	495.00	23.25
1,000	1,104.96	104.96	92.08	1,210.08	210.08	50.42	1,329.84	329.84	36.94	1,440.00	440.00	30.00	1,549.80	549.80	25.83

For loans in excess of £1,000, total repayable, interest and monthly payments are pro rata. Rates at 1st August 1978.



Use this form to get your cheque quicker

To apply for your AA Members Loan complete this form and post to
Mercantile Credit, FREEPOST, London WC2B 5XA.

Surname _____

First Names _____

Married/Single _____ (Tick as applicable)

Country of Birth _____

Date of Birth _____

Are you in good health? YES/NO _____ No. of dependent children _____

Full postal address _____

Postal Code _____

How long at address? _____

Tel. No. _____

DEPT.

SERIAL NO.

CHECK DIGIT

For office use only

Owner/Tenant House/Flat/Rooms/
Living with parents _____ (Tick as applicable)

Profession or trade _____

Name of employer _____

Business Address _____

How long in their employ? _____

Bankers _____

Bankers address (in full) _____

Do you hold a Barclaycard? YES/NO _____

AA Membership No. _____

Purpose of loan (give details) _____

Total cost of goods or service £ _____

Amount of cash required £ _____

Repayment period required _____ months

Average net monthly take-home pay (i.e. after
deduction of Income Tax, N.H.I. Contributions, etc.)
£ _____ monthly

Any other income £ _____ monthly

Please submit your latest P.60 or other annual
advice or at least two monthly/weekly pay slips

Mortgage payments/Rent £ _____ monthly

Total of current hire purchase and credit payments
£ _____ monthly

Any other regular payments £ _____ monthly
(Give details)

You may make all enquiries necessary to enable you to consider this application and also to disclose to the National Credit Register details in respect of this transaction excluding any information relating to income. It is understood that you reserve the right to decline this application without stating a reason. Membership of the Automobile Association or a previous or current account with Mercantile Credit do not of themselves ensure acceptance.

SIGNATURE _____

DATE _____

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Crown makes holiday entertainment part of your luggage.

Our TV/Radio and Radio/Recorders are light and adaptable enough to be perfect travelling companions. So you won't miss a thing when you go away.

In one compact unit, the Crown 5TV combines a 4½" personal TV with an AM/FM radio tuner.

It weighs only three and a half kilos and works off the mains, eight HP2 batteries, a rechargeable battery pack and a car or boat battery. In other words, it couldn't be more portable. You can literally take it anywhere.

Wherever you are, solid-state circuits and a built-in antenna make for superb reception. There's even an outdoor antenna

to take the sting (and the fuzz) out of adverse conditions. And you can listen through an earphone without bothering a soul.

Our Stereo Radio/Cassette Recorders are equally hardy travellers.

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WRECK
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West**

**Co. FAMILY HOME
AFTER FIRE**

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with AA Homesure**

We all have possessions we really value. Start with your house, your biggest asset of all. Then everything in and around it ... the fittings and furniture, and all those specially valuable items, the colour TV, your precious hi-fi system, the wife's jewellery. Add up the cost of replacing these articles — you will be surprised. But things can happen to them ... storm, theft, fire, flood. So you owe it to yourself to cover them effectively, with all-in-one AA Homesure.

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you choose the cover**

First AA Homesure covers your house or flat, garage and garden equipment against almost any disaster. Then it gives a choice of protection for the contents ... either Standard or Super Cover. That includes your furniture, appliances, clothing, sportsgear, personal items, even money. If thieves break in or flood water

risers, if fire starts or water pipes burst, Homesure pays for loss or damage **at full replacement value**. If you want to add extra-valuable jewellery etc. Homesure gives extended cover. Include your freezer and contents too, or extra cash and credit card provisions. In fact, tailor an AA Homesure policy to your needs, and your pocket.

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Address.

Renewal Date.



USED-CAR PRICE GUIDE

Clean up?

'IT'S A LITTLE gleamer, sir. Only driven by a little old lady who just took it out once a week to polish it. . . . The sales patter goes on and on, and often it works. The uninitiated are often swayed into choosing a used car simply because its paintwork is bright and shiny. Among garage owners, there is little doubt that time spent with a spray-gun and abrasive cleaning compounds is money in the bank.

But what happens if you're aiming to sell rather than buy? Is it worth spending money having a car valeted and generally restored before presenting it to a dealer?

The quick answer is no. A dealer is more interested in the car's date of birth than, say, the state of its tyres. Replacing worn tyres with a new set could easily cost £100, and a dealer might add just a fiver to his offer.

Clean the car, yes—but don't spend cash you won't get back.

If a car is not vital to your daily routine, you would certainly be wise to take your time and sell privately. You can then go to a dealer with cash in hand and try to negotiate a discount on the car of your choice. But remember, even selling privately you won't make much more if your car is laden with accessories.

On the other hand, it won't help a sale if the car is covered with holes where goodies used to be. So, if you remove the radio, fit a blanking plate, and, if you take off your electric aerial, fit a rubber grommet or, better still, a new, cheaper aerial.

Finally, though changing the oil and re-lining the brakes may seem like throwing money down the drain, some engine attention may be worthwhile. There's nothing harder to sell than a car that won't start or stop. . .

To help you buy and sell at the right price, DRIVE lists 100 of today's most popular models (prices assume the vehicle is in good condition for its age). Specifications are compiled from AA road-test reports—the reference numbers and the issue dates of which are shown in the table.

MAKE AND MODEL	£ latest new price*	AA Road Test Report No	Date	engine cc	mean top mph	acceleration 0-60 in sec	overall mpg	insurance group	MODEL YEAR						
									Average secondhand price guide						
									1977	1976	1975	1974	1973	1972	1971
Alfa Romeo Alfased SE	2999	354	9/74	1186	92	16.1	32.5	4	2230	1840	1505	1215	—	—	—
Audi 80 L	4097	389	6/76	1297	91	14.2	31.75	5	2975	2330	1860	1490	1165	—	—
Audi 100 LS	S	314 RI 139	1975	1761	100	12.7	29.25	6	—	2700	2155	1785	1340	1090	895
BMW 1602 Lux	D	363	1/75	1573	94	14.4	29.0	6	—	2525	2105	1935	—	1215	1040
BMW 520 i	6749	327	12/73	1990	111	9.7	29.0	S/R	5695	4730	3790	3020	2380	—	—
Chrysler Imp de luxe	D	258	9/71	875	78	20.0	36.0	1	—	1160	995	850	720	610	510
Avenger 1300 2-door	2535	337	4/74	1295	83	19.0	30.5	2	2110	1540	1320	1120	—	—	—
Avenger 1600 GLS auto	3677	339	5/74	1600	93	13.9	26.5	4	2700	2045	1740	1470	—	—	—
Alpine S	3674	381	4/76	1442	97	14.3	32.0	5	2875	2440	—	—	—	—	—
Hunter GL 4-door	3448	234	1/71	1725	86.5	15.0	28.7	3	—	1845	1580	1340	1090	915	770
Sceptre Mk3 auto	D	169	10/68	1725	97	14.1	28.6	4	—	2150	1825	1535	1290	1070	885
Chrysler 2litre auto	4159	308	5/73	1981	102	13.2	24.0	5	3180	2300	1860	1460	1110	—	—
Simca 1100GLS 5-door	2761	298	1/73	1118	85	16.5	33.25	3	1895	1575	1335	1120	935	775	630
Citroen 2CV6	1699	RI 118	1975	602	66	37.2	44.0	1	1290	1060	895	—	—	—	—
Citroen Dyane 6	1876	366	3/75	602	70	29.5	47.0	1	1395	1100	935	780	650	535	435
Citroen GS1220 Club	2981	384	5/76	1222	93	17.2	33.0	4	2175	1745	1440	1180	955	—	—
Citroen CX2000	4776	416	5/77	1985	107	12.7	29.25	6/7	3395	2775	2380	—	—	—	—
Colt Lancer 1400 GL 4-door	3070	371	11/76	1439	94	12.9	34.0	5	2250	1805	—	—	—	—	—
Daf 66SL	S	317	9/73	1108	79	23.5	29.0	3	—	1120	955	805	—	—	—
Datsun Cherry 100A 4-door	S	284	8/72	988	83	17.7	41.25	3	—	1640	1400	1190	1010	850	715
Datsun 120Y coupé	2784	336	3/74	1171	86	17.7	39.0	4	2245	1925	1635	1385	—	—	—
Datsun Violet 140J	2877	RI 132M	1975	1428	94	15.5	32.0	4	2090	1870	1500	1260	—	—	—
Datsun Bluebird 180B	3257	316	8/73	1770	104	12.3	27.0	5	2270	1930	1625	1370	1150	950	—
Fiat 126	1571	334 RI 138	2/74	594	62	60.0	48.5	1	1175	1015	880	755	650	—	—
Fiat 127 3-door	2299	RI 137M	1975	903	82	18.4	41.75	2	1670	1430	1220	1030	880	—	—
Fiat 128 4-door	2432	320	9/73	1116	86	15.5	34.0	3	1735	1480	1260	1065	900	755	630
Fiat 131 1600S	3220	369	6/75	1595	94	13.6	32.0	5	2430	2245	1735	—	—	—	—
Fiat 132 1800GLS	S	360	1/75	1756	102	12	25.0	6	2445	2015	1655	1490	—	—	—
Ford Fiesta 1000 HC	2260	417	4/77	957	83	18.4	41.0	1	1925	—	—	—	—	—	—
Ford Popular 1.1	2205	RI 136M	1975	1097	77	23.6	35.0	1	1785	1535	1325	—	—	—	—
Escort 1300XL 4-door	S	292	11/72	1297	88	16.0	31.0	2	—	1495	1290	1100	940	800	—
Cortina Mk3 1600XL 4-door	S	323	10/73	1593	95	15.1	27.0	3	—	2040	1685	1435	1225	1030	875
Cortina 2000E Estate	S	347 RI 116	1974	1993	99	12.3	27.5	5	—	2725	2180	—	—	—	—
Capri MkII 1600GT	S	342	6/74	1593	102	12.4	27.5	5	3015	2515	2170	1945	—	—	—
Capri 3000 Ghia auto	S	RI 114	1974	2994	113	9.9	22.0	6/7	4360	3625	3040	2645	—	—	—
Granada 3000 GXL auto	S	282	6/72	2994	108	11.7	21.0	6	—	2650	2055	1560	1115	—	—
Honda Civic 1200 3-door	2560	362	3/75	1169	86	14.7	34.75	4	1895	1615	1370	1160	—	—	—
Honda Accord auto	3735	420	5/77	1600	89	14.7	32.0	5/6	2850	—	—	—	—	—	—
Lada 1200	1955	355	9/74	1198	91	15.0	33.25	3	1400	1185	1005	845	—	—	—
BL Mini 850	1990	340	5/74	848	73	26.1	41.0	1	1530	1325	1050	905	770	655	555
Mini Clubman Saloon	2321	410	1/77	1098	82	18.2	40.5	1/2	1875	1605	1285	1095	945	805	680
1300 Mk2/3 4-door	D	239	2/71	1275	87.5	17.2	36.5	2	—	—	—	1075	925	790	670
Allegro 1300 Mk1	S	329	1/74	1275	86	16.0	34.75	2	—	—	1460	1230	1030	—	—
Allegro 1300 Mk2 4-door	2749	377	2/76	1275	85	19.0	37	2	2190	1815	—	—	—	—	—
Allegro 1500 Estate	3042	RI 127M	1975	1485	90	16.6	34.25	3	2505	2120	1825	—	—	—	—
Maxi 1750 Mk2	3288	263	1/72	1748	90	14.6	28.75	3	2530	2035	1730	1465	1225	1025	855
Princess 1800HL	3707	397	8/76	1798	96	14.2	29.75	4	2645	2175	1900	—	—	—	—
Princess 2200HL	3999	RI 129N	1975	2227	105	12.7	26.5	4	2725	2200	1925	—	—	—	—
Marina Mk2 1.3 4-door	2776	392	7/76	1275	85	18.2	33.0	2	2210	1835	—	—	—	—	—
Marina Mk1 1.8 4-door	S	295	1/73	1798	96	12.8	31.5	3	—	—	1625	1370	1150	960	795
MG Midget Mk3	S	205	2/70	1275	93	14.8	29.1	4	—	—	—	1235	1040	880	740
MGB Mk2/3	3491	243	4/71	1798	105	11.8	23.9	6	2825	2405	2030	1685	1415	1190	995
Jaguar XJ6 4.2	S	227	10/70	4235	117	10.0	16.75	6/7	—	—	—	3690	2380	1960	1635
Jaguar XJ12(L)	S	305	4/73	5343	136	7.6	13.0	7	—	—	4655	3765	2330	—	—
Rover 2200SC	D	324	11/73	2205	104	12.2	24.0	4	3765	3120	2480	2055	—	—	—
Rover 3500 auto	S	330	2/74	3528	112	11.1	20.5	5	—	3540	2800	2280	1760	1415	1165
Range Rover	8528	252	7/71	3528	101	13.2	18.0	5	8170	7305	5945	4780	3965	3245	2625
Triumph Toledo 4-door (Dolomite)	2953	345 RI 150	1977	1296	83	19.8	33.0	2/3	2345	2000	1510	1300	1115	950	—
Triumph Dolomite 1850	S	288	9/72	1854	100	11.4	28.25	4	—	2305	1935	1635	1365	1140	—
Triumph 2000 Mk2	D	219	6/70	1998	95	15.0	26.0	4	—	—	2280	1985	1390	1140	945
Triumph 2500 TC	D	RI 112	1974	2498	101	11.5	27.0	5	3715	3070	2625	2080	—	—	—
Triumph Spitfire 1500	3082	376	2/76	1493	97	12.5	35.25	5	2360	1985	1660	—	—	—	—
Triumph Stag	D	273	3/72	2997	118	10.2	22.5	S/R	5325	4360	3540	2875	2330	1835	1415
Triumph TR7	4072	401	11/76	1998	108	10.2	28.75	6	2900	2480	—	—	—	—	—
Mazda 1000 2-door	1921	343	6/74	985	78	20.0	33.5	3	1535	1310	1105	935	—	—	—
Opel Kadett S estate 3-door	2890	338	5/74	1196	84	16.7	32.0	4	2255	1925	1635	1380	1010	845	700
Opel Ascona 1.9SR	S	302	3/73	1897	96	12.3	25.5	6	—	—	1905	1535	1220	—	—
Opel Rekord 4-door	S	287	8/72	1897	101	12.0	26.0	4	—	—	1835	1510	1265	1090	—
Peugeot 104 4-door	S	325	11/73	954	84	17.3	36.5	3	—	1610	1385	1175	1000	—	—
Peugeot 304	S	386	5/76	1290	92	16.7	35.5	3	—	1990	1690	1420	1190	985	805
Peugeot 504GL	4252	RI 140	1976	1971	99	13.7	27.75	5	3270	2775	2280	1885	—	—	—
Peugeot 504 estate	4655	275	4/72	1971	98.5	13.8	24.5	5	3840	3295	2750	2255	1885	1560	—
Reliant Scimitar GTE	7014	303	3/73	2994	118	9.1	21.25	7	5495	4435	3445	2850	2405	1960	1610
Renault 4TL	2190	RI 121	1975	845	74	26.4	39.0	1	1705	1460	—	—	—	—	—
Renault 5TL	2404	349	8/74	956	85	19.7	42.0	2	1975	1685	1440	1215	1030	—	—
Renault 5TS	2899	370	11/75	1289	93	13.3	36.25	4	2255	1930	1645	—	—	—	—
Renault 6TL (1100)	2647	364	3/75	1108	82	17.9	37.75	3	2015	1720	1470	1245	—	—	—
Renault 12L	S	385	5/76/												



8,000 lucky Cortina buyers will get something extra this year.

Anyone who buys a new Cortina Ghia this year is going to get a good car. But a few thousand are going to get an even greater one.

Ford are fitting Pirelli P3 70 series radials as original equipment on 8000 of their new models.

That may not sound like a major change on paper, but on the road it makes all the difference in the world.

In addition to the normal steel belts, P3 has an additional belt of nylon. This, together with the tyre's special tread design and compound gives the low profile P3 truly outstanding grip, wet or dry.

The tyres are tough yet highly flexible. As well as giving a more comfortable ride, this helps to keep the tyre tread where it works best—flat on the road at all times.

And because the P3 is a high mileage tyre it goes on giving superb sure-footed performance for miles after thousands of miles.

If you're buying a Cortina this year, try and get one which runs on Pirelli. Of course, demand will be high so you may be unlucky.

But look on the bright side. One day you'll be free to change to P3 70 series.

And we are sure you'll agree it will be a change for the better.

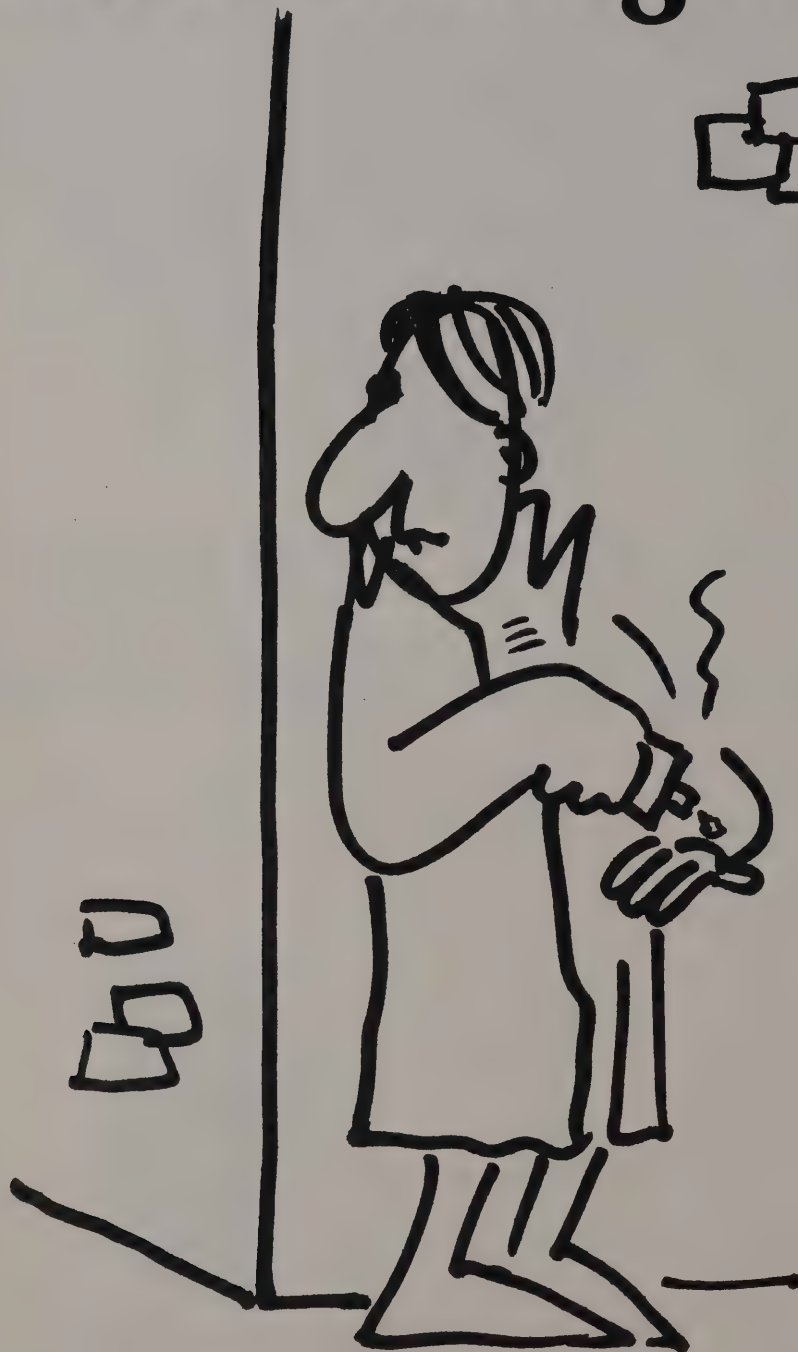


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CINTURATO P3

'70' Series

The best low profile tyre for you.

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"Too effeminate,
these scented male colognes",
they said.

But suddenly, smelling fresh
and masculine caught on,
and splashing on a brisk,
refreshing aftershave became
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The same is happening with
men's hairspray.

Today, there is no better way
to control your hair,
yet keep it looking shiny
and natural. All day long.

Get hold of a can of Cossack.
Make it part of your routine.

In the morning before work.

In the evening before you go out.

Even if you're still a little shy
about aftershaves.

**Hairspray for men from Cossack.
The best men's hairdresser in town.**



SEA DETAIL

AA

DRIVE

November-December 1978

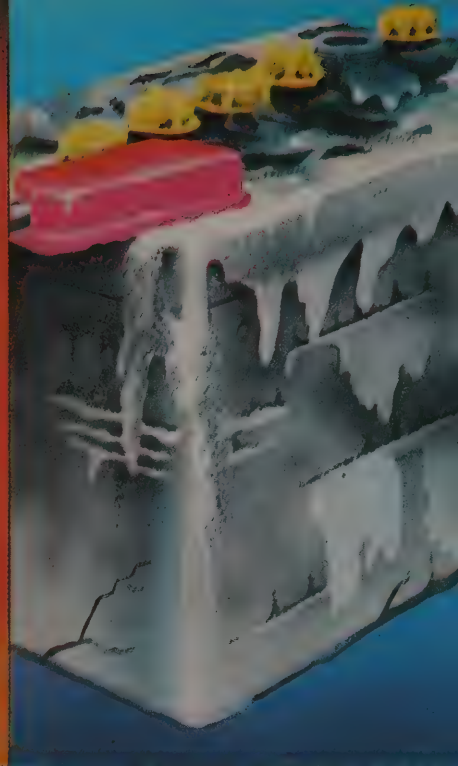
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40p



City
slickers
on test

Should YOU drive today?
Check your
biorhythms
page 40



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When it happens, come and see us. Your local Standard Motorists' Centre. We fit everything fast, while you wait. And we don't charge for labour when we fit tyres, complete exhaust systems or batteries.

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Our shops also stock a terrific range of accessories and spares.

So look for your nearest Standard Motorists' Centre in the Yellow Pages, and make a note of the address and phone number.

After all, you never know when you might need us.



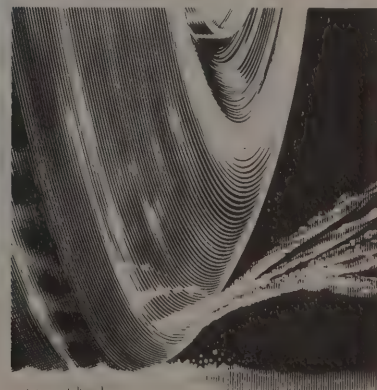
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DRIVE

November–December 1978 Number 54
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AGAIN THIS YEAR, as for so many years past, DRIVE investigations and comment have received widespread media attention. But perhaps none more so than our July–August study of road maintenance, which, backed by an ongoing AA monitor of road condition and the reports of local-authority highway engineers, added up to a forthright indictment of years of Whitehall policy that has forced down the level of local-authority spending on the upkeep of roads.

DRIVE's story won a great deal of radio and television time, as many readers will recall. It also featured prominently in the lively parliamentary debate that took place shortly after publication.

Elsewhere on this page, we carry a reply from the Secretary of State for Transport. We make no comment on it—the magazine has already occupied many column inches with its side of the argument—but look forward to the letters that we feel sure will follow from county surveyors, highway engineers, road-safety specialists, and of course readers who simply pay for and use the roads.

Also in this issue, DRIVE reports on £29,000-worth of new cars—the Princess 2 2200HL, BMW 520,

Datsun Laurel Six, Opel Rekord Berlina, Renault 20TS and Fiat 132 2000; adds a reader's Toyota Celica XT2000 to its fleet of long-term road test vehicles; and moves into the £3000–£4000 used-car market to find buys as diverse as Saab's practical 99GL Super Combi coupé and Aston Martin's delicious DB6.

We also question the toll taken by tolls (page 10)—is this a bridge too much? On page 40, we look at an idea that some say is the greatest thing since witchcraft, and give you the chance to try it out at cut-price. And, as ever, we do our level best to inform, instruct and entertain, from the Index of Motoring Costs (page 7), Clinic (page 53) and Used-car Price Guide (page 64) to Great Escapes (page 28), the regular Restaurants review (page 50) and Motor Sport (page 43). And we give you a special AA Seal of Approval supplement in the centre of the magazine.

Read us. And, like Mr Rodgers, write and let us know how you react to our ideas and findings.

We want your letters.

— the Editor

Monitor

Money and roads

Following DRIVE's outspoken criticism of the state of road maintenance ('The end of the road?' July–August), Mr William Rodgers writes, as Secretary of State for Transport:

● I am grateful to the Editor for an opportunity to explain my views on the present standard of road maintenance. DRIVE readers are road-users, but they also pay taxes and rates, and are no doubt interested in getting value for their money. In this we have a common aim.

When we decided, in 1975, to reduce maintenance expenditure on trunk roads, we urged local highway authorities to review their own expenditure on other roads in the same way—such cuts in public spending were necessary as part of the fight against inflation. Economies were to be made progressively over some years so that their effect could be observed, and we expected that their impact would be greatest on less-heavily trafficked roads. We advised that operations affecting road safety and road structure should remain substantially unchanged. But a substantial part of maintenance spending has little to do with these basic aspects.

Since then, local authority maintenance expenditure has fallen by less than 13% in real terms. It has now levelled out at an annual figure of around £470million. Even so, many counties continue to spend less each year on road maintenance than the amounts they say they wish to spend and which we accept for grant support.

The rate support grant and transport supplementary grant systems are designed to give flexibility while trying to ensure a fair distribution of central government's contribution between authorities, and it is for each local authority to decide on the distribution of its available resources over a very wide field of responsibility.

While of course I recognise the problems facing local authorities

in taking such decisions, I do not believe that, as the responsible highway authorities, they would spend less of their total resources on the maintenance of roads than is necessary to maintain their safety and structural stability. And, since their expenditure on maintenance has been generally lower than the levels accepted by the government, I find it hard to believe that in current circumstances these levels are inadequate to meet present and foreseeable needs.

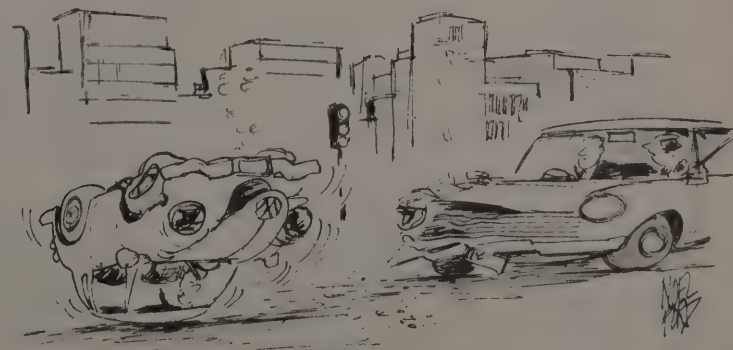
On trunk roads, for which I am responsible, maintenance expenditure has now started to rise a little. That is right because, while trunk roads represent less than 5% of the road mileage, they carry 28% of all traffic. Motorways alone now carry one quarter of all heavy-goods traffic and so provide substantial relief to local roads.

Some people have suggested that, as a result of the reduced funds available for highway maintenance, the nation's roads are rapidly deteriorating. But, despite these generalised allegations, I have seen no objective evidence to show that present levels of maintenance are affecting the safety or the basic structure of our roads.

Local authorities and my department have mounted an annual series of extensive, national road-condition surveys to monitor the situation, and corrective action can be taken if these produce evidence of undue deterioration; I hope that the first reliable indications will emerge when we get the results of the 1978 survey, towards the end of this year. Accident statistics are also carefully watched, and here again there has been no recognisable change in trend, except as regards two-wheel motor vehicles, where accidents are increasing as use increases.

I recognise, of course, that roads are not maintained as they could be if resources were unlimited. But as this is never likely to be the case, it is necessary to spend wisely and selectively.

There is at present no base of information from which to arrive at a clearly defensible level of



'For heaven's sake, Arthur—that was an endangered species!'

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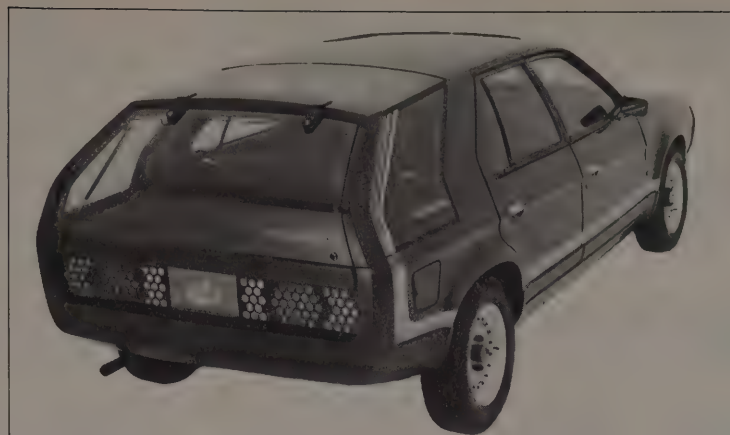
maintenance expenditure. Present standards have evolved subjectively, albeit with the aid of judgement and experience, and lean heavily on past practice. But my department and local authorities, through our joint standing committee on highway maintenance, are seeking to develop objective standards which can be justified rationally, remembering that the value of a road comes only from its use, and that maintenance spending has to relate to that use.

Progress made by the standing committee so far is impressive and owes much to the ready co-operation of local authority associations, whose members share our interest in solving the problems surrounding road maintenance. There is still a long way to go, but I shall continue to watch the situation with care.

Our man in Amman

What is the assistant road-safety officer of Harrow doing with a skidpan, British-built driving simulators, half a dozen brand-new, bright-yellow Toyotas and somebody else's chequebook ... in the Middle East?

James Craven, a long-time police driving instructor before he joined the road-safety team at Harrow, Middlesex, is a guest of the Royal Jordanian Automobile Club for six months, briefed to set up the kingdom's—and, indeed, the



British design team, Ogle, joined forces with Triplex to make a silk purse out of an Austin-Morris Princess for the October Motor Show in Birmingham: the result is the Ten-Twenty Glassback, a one-off wedge with edge. The Princess's nose has been raised, her waistline levelled, but the big difference is in the all-glass hatchback and twin sunroofs—made possible by extra-thin glass. A design fantasy? Well, Triplex-Ogle's last effort was a 1965 Reliant special—that did very nicely as the trend-setting sports hatchback, Scimitar GTE

Mid-East's—first-ever driving-instructor training centre in the grounds of the club HQ. The chequebook will buy the first seven expert L-instructors in Jordan, plus a back-up staff of three; the Aylesbury-built Simtex simulators and RACJ skidpan will be their training aids; and the distinctive yellow cars will be the tools of their trade.

The Jordanians asked Harrow to help pioneer the L-centre after

looking at training schools and schemes in many countries. The London borough's (five years old this year) impressed most ... as it impressed the AA in 1973, when it won the Association's Silver Medal for its contribution to the general safety and advancement of motoring.

By coincidence, the day after Craven arrived in Jordan's capital Amman, police toured the city slapping International Traffic

Day road-safety stickers on vehicles. A slightly hopeful gesture, thought Craven, in a city where, at present, driving is somewhat ... er, competitive.

Heaven-sent Samaritan

It was, to say the least, a strange coincidence. Indeed, the Rev Reginald Shackford might have been forgiven for thinking that it was an act of God.

Mr Shackford, 66-year-old minister of the Pentecostal church in Southmead, Bristol, certainly needed help when his 1974 Ford Cortina was rammed in the back by a car on the A40 in Monmouth. It ended up with its nearside front wheel on the crash barrier, hanging over the Wye Valley.

As luck (?) would have it, the first motorist to arrive was another man of the cloth: Norman Mellish, travelling from his Withington, Manchester, home to speak at a Christian Brethren meeting in Monmouth that evening, stopped at once.

Mr Shackford recalls: 'My wife and I were accompanied by two American friends. We were all in a state of shock, but fortunately not seriously hurt. The car, however, was a complete write-off.'

Though an ambulance, called by a patrolling police car, arrived a few minutes later, Mr Shackford chose to stay with his wrecked vehicle while the rest of his party



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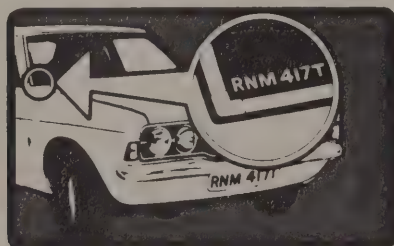
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MONITOR

was taken to hospital. 'I thought it best to wait and look after the luggage, which was strewn over the road. We had been to a conference in Blackpool, and the car was packed with cases,' says Mr Shackford. 'That's how Mr Mellish came to my aid in a really caring-motorist manner.'

'He cleared the road of all the cases, tools and loose bits and pieces, and piled them into his own car. Then, as I was feeling a bit groggy from the crash's whip-lash effect, he insisted on taking me to hospital.'

For Mr Mellish, it meant a 20-mile detour. 'But I was pleased to help, particularly when I knew Mr Shackford was a fellow churchman,' he says.



Norman Mellish, 43, married with nine children aged between 16 years and 14 months, delivered Mr Shackford and the luggage to hospital in Abergavenny, then drove on to reach Monmouth in time for the start of his meeting.

'I only missed my tea,' he recalls. 'I didn't mind. After all, if I can't help someone in distress, how can I expect to preach the Gospel to others?'

His 1973 Vauxhall Victor has 87,000 miles on the clock, and Mr Mellish covers about 25,000 miles a year preaching all over the country. Now he can look forward to 10 years' free membership of the AA—his prize in DRIVE's Caring Motorist quest. Mr Shackford, who nominated him, can choose £10-worth of prizes from the AA mail-order catalogue.

Light relief

Last word on our loo survey (July-August issue). One of our intrepid inspectors has discovered in Bognor (where else?) Regis a public convenience that is to have its water heated by solar power.

It has taken Arun County Council's planning officer, Ernest Lacy, two years of hard talking to get his solar brainwave approved, and now, for £375, the system is to be installed so that running costs can be compared with those of conventionally powered loos.

Relay marathon

Membership of the AA has soared to an all-time record of more than 5,300,000—and it's still climbing. During August, close on 4000 motorists a day were joining the Association.

The AA's Relay service is also proving popular. More than 2 million members now belong to the service (it was introduced five

years ago), and in just one week-end in August this year over 1000 Relay recoveries were made.

Staggering...

Philip Mendel, luckless third 'prize-winner' in DRIVE's 1974-1975 Square Wheel Award, has just sold his notorious Triumph Stag—and bought another!

Despite his well-documented struggle to have a variety of initial faults corrected, Mendel, a 40-year-old London chartered accountant, has had nothing but praise for the troublesome pimento-red car since a new engine was fitted in February last year. The old one had seized four days earlier on the M3.

'British Leyland was marvellous about it,' he says. 'When I told its export division at Acton, west London, where I bought the car, that it had done only 22,000 miles in two and a half years, Leyland at once agreed to fit a new engine if I would contribute the £270 labour charges. I think that was a generous deal.'

Mendel believes in regularly updating his car model, but, as the Stag has been out of production since October 1977, he first had to find one of the half-dozen or so new Stags still on the market. Eventually he traced one to a garage in Kensington, taking delivery at the beginning of August... after several rust patches on the bodywork had been treated.

Practising what he preaches

The AA has taken the High Road to 26 acres of secluded land in Scotland, and is turning it into a luxury holiday village to be opened early next year.

An artificially created loch will be stocked with fish and surrounded by 50 wooden lodges among the trees—all just three-quarters of a mile from the Spey Valley village of Carrbridge.

Holidaymakers will be able to enjoy all the usual village facilities, plus a heated indoor swimming pool, golf, riding and seasonal sports.

Lodges will cost between £70 and £180 a week, and will sleep up to six people in three rooms. Looking after the holidaymakers will be Robin Wills and his wife Christine. Robin—formerly the AA's chief hotels inspector—is also the author of DRIVE's hotel and restaurant columns.

Roads information

Numbers in parentheses refer to maps in the 1978-1979 AA *Members' Handbook*.

BRITAIN

Motorways open M85 Perth south-eastern bypass, 1½ miles (52).

Major roads open A120, Bishops Stortford bypass, 2½ miles (19); A6129, Wheathampstead bypass, ¾ miles (19); A10, Milton bypass, 1½ miles (19); A617, Hasland bypass, 1½ miles (24); A96, Huntly bypass, 2½ miles (57). ●



INDEX Colour prejudice

IT'S BLUE for a *girl* when it comes to cars: 24% of women motorists pick that colour. But then, 21% of men, too, favour blue, making it the most sought-after colour in the car spectrum.

However, a special DRIVE survey suggests that only 12% of motorists think colour is really important when choosing a car, and — understandably — the younger and poorer a motorist is, the less it concerns him or her.

Safety is a big factor for 14% of drivers, nearly half of whom say white is best. But white receives only just over half of the votes for blue, with green, yellow, brown, orange and grey (in that order) well behind.

On a grimmer note, the latest survey for DRIVE's Index of Motoring Costs (right) shows that the recent and encouraging drop in expenditure has now been reversed, with a sharp increase in servicing and repair costs, and a 6% rise in insurance premiums, upping the index total by two points to the 192 all-time high.

Comparing the current table with that for the same period last year, while the jump in insurance is marked and unexpected, it is May's servicing and repair bills that take the black prize for inflation—the monthly average of £21.56 is a 60% increase on payments for May 1977, though June saw this drop back to £11.88, in line with normal upward trends.







Those freak garage bills for May make it the most expensive month to date for DRIVE's car owners—7.82p per mile on average, compared to 5.84p for June, and giving a yearly average of 6.36p per mile.

Index indicators

The cost-per-mile returns show changes in the league table of economical cars. Last time's bargain runner, the Ford Escort 1300, has dropped to second place behind the Datsun Sunny/Cherry range, which, at 4.54p per mile, is 0.06p per mile cheaper. Third place is shared by the Ford Cortina 1300 and Volvo range—Volvo owners drove an average of more than 13,000 miles during the year to achieve a cost-per-mile of 5.20p. And the Austin Allegro is in fifth place at 5.24p per mile.

The most expensive cars are now Vauxhalls at 9.27p and the Austin-Morris Princess at 8.9p.

MOTERING COSTS: July 1977–June 1978

INDEX Oct 1973 = 100	104	184	204	113	195	104	159	200	192
MONTH-BY-MONTH ANALYSES (all cars) AND ENGINE RATING ANALYSES (post-1968 cars)			Petrol 	Oil 	Servicing repairs 	Access- ories 	Insurance 	Other costs 	TOTAL
July 1977	847	6.65	27.01	1.11	15.33	1.18	3.07	8.66	56.34
August 1977	867	5.79	26.23	0.81	11.01	1.71	3.02	7.39	50.19
September 1977	823	5.75	24.39	0.70	10.86	0.15	4.09	7.13	47.32
October 1977	738	6.60	24.10	1.63	11.08	0.44	3.97	7.49	48.70
November 1977	778	6.04	24.26	1.13	9.04	0.32	4.06	8.17	46.98
December 1977	719	5.72	22.60	0.65	6.64	0.18	4.11	6.92	41.11
January 1978	616	7.17	21.07	0.64	11.23	0.61	3.99	6.63	44.16
February 1978	738	6.17	21.26	0.85	11.80	0.81	4.24	6.59	45.55
March 1978	674	6.69	21.47	0.70	11.33	0.76	4.22	6.59	45.08
April 1978	757	6.47	23.85	0.93	10.86	0.40	4.17	8.78	48.99
May 1978	762	7.82	24.86	0.63	21.56	1.18	4.33	7.05	59.62
June 1978	852	5.84	24.38	0.81	11.88	1.01	4.41	7.28	49.77
TOTAL (for year)	764	6.39	285.48	10.59	142.62	8.75	47.68	88.68	583.81
–900cc	560	6.15	14.02	0.56	9.31	1.49	3.82	5.28	34.48
901–1100cc	717	5.84	19.33	0.61	10.69	0.79	3.86	6.55	41.84
1101–1300cc	785	5.79	22.55	0.79	10.22	0.80	4.03	7.11	45.50
1301–1500cc	740	6.32	23.93	0.63	9.84	0.65	4.21	7.47	46.74
1501–1700cc	1025	5.75	32.18	0.67	13.28	0.86	4.55	7.32	58.86
1701cc +	987	6.57	33.96	0.94	15.27	0.61	5.19	8.84	64.82
MODEL-BY-MODEL ANALYSES – post-1968 cars									
Chrysler Imp	445	8.14	13.97	0.89	12.48	0.00	3.58	5.28	36.21
Avenger	726	6.74	25.47	1.08	11.62	0.11	3.80	6.80	48.88
Hunter 1500/1750	715	6.80	25.51	0.84	5.47	0.39	4.33	12.07	48.60
Datsun Cherry/Sunny	931	4.54	21.62	0.38	10.05	0.00	4.48	5.70	42.23
Fiat 128/124	802	5.80	20.20	0.40	13.66	0.00	4.49	7.72	46.47
Fiat 500/127	479	6.97	12.74	0.23	9.90	0.00	4.23	6.30	33.39
Ford Escort 1100/Popular	814	5.63	25.08	0.64	8.36	1.07	3.98	6.73	45.85
Escort 1300	1002	4.66	26.46	0.37	8.07	0.70	4.21	6.82	46.64
Cortina 1300	916	5.20	29.67	0.23	7.36	0.00	4.14	6.21	47.60
Cortina 1600	1110	5.31	35.35	0.82	9.13	1.35	4.14	8.21	59.00
Cortina 2000	1070	6.01	38.01	0.82	12.40	0.26	5.27	7.56	64.32
Capri 1600	963	6.24	33.28	0.65	12.34	0.22	5.19	8.38	60.06
Granada/Consul	1199	6.61	48.55	1.22	16.25	0.00	5.59	7.64	79.25
BL Mini	610	6.57	15.77	0.69	11.93	1.63	3.85	6.26	40.12
1100/1300	502	7.69	16.41	0.93	8.96	2.49	3.46	6.33	38.58
Allegro	770	5.24	21.92	2.62	4.51	0.19	4.05	7.01	40.30
Maxi 1500/1750	899	5.88	26.94	0.47	13.51	0.00	4.11	7.81	52.85
Marina 1300	926	5.73	24.54	0.84	12.20	2.89	3.58	8.99	53.04
Marina 1800	906	7.26	28.19	1.92	19.86	0.98	4.44	10.34	65.72
Princess 1800/2200	700	8.90	25.77	1.47	24.29	0.03	4.39	6.40	62.34
Rover 2000/3500	1011	6.76	35.65	0.42	17.50	0.34	5.39	9.01	68.31
Triumph Toledo/Dolomite	735	6.53	22.54	0.52	12.74	1.00	4.56	6.70	48.05
Triumph 2000/PI	809	6.56	30.82	0.33	8.09	1.42	5.04	7.38	53.08
Simca 1000/1100	662	6.43	20.57	0.30	11.34	0.23	3.83	6.28	42.55
Vauxhall Viva	722	5.80	20.97	0.88	8.95	0.52	3.77	6.79	41.87
Victor 1800/2300	734	9.27	35.95	1.52	19.82	0.00	4.10	6.67	68.06
VW Beetle	644	6.19	19.20	0.33	10.15	0.01	3.69	6.50	39.87
All Chrysler UK	741	6.44	24.33	0.91	9.83	0.65	3.99	7.99	47.71
Ford	1004	5.48	32.20	0.66	9.60	0.72	4.45	7.38	55.00
Leyland	770	6.53	23.76	0.95	12.52	1.24	4.21	7.61	50.29
Vauxhall	793	6.03	24.67	0.94	11.23	0.40	3.94	6.70	47.87
All British	846	6.08	26.45	0.85	11.64	0.88	4.23	7.39	51.44
All Fiat	697	6.56	19.26	0.40	13.63	0.40	4.73	7.30	45.71
Renault	774	5.54	21.50	0.33	7.62	1.47	4.35	7.61	42.90
Simca	694	7.29	22.08	0.40	17.66	0.15	3.95	6.32	50.56
Volvo	1134	5.20	36.91	0.77	5.81	2.06	5.92	7.54	58.99
All French	797	5.98	23.05	0.34	10.68	0.87	4.41	8.32	47.66
Italian	718	6.47	20.69	0.48	12.55	0.34	5.00	7.42	46.48
Japanese	923	5.57	25.10	0.42	13.82	0.19	4.95	6.91	51.41
W German	856	6.24	26.72	0.52	13.72	0.32	4.92	7.16	53.38
All Foreign	828	6.05	24.30	0.49	12.54	0.52	4.78	7.46	50.09
Average monthly costs (£) excluding depreciation									
Cost per mile (pence)									
Average monthly mileage									

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WORLD-WIDE

Goodbye, goodbye

ONE EARLY casualty of Peugeot's takeover of Chrysler in Europe is certain to be the Simca 1000. And its disappearance will mark what is virtually the end of the **rear-engined era** among small cars that began with Dr Porsche's VW Beetle back in the 1930s.

Porsches and small Fiats apart, the only significant rear-engined car still in mass production will be the Skoda Estelle—and even that is due to get a front-mounted power unit in the not-too-distant future.

Everyone—well, *some* people—like to be the first to have a new car; but just how much will they pay for the privilege? New records are being set by desperate buyers of sought-after imports such as the Mercedes-Benz 450 SLC and Porsche Turbo 3.3 paying **huge premiums**. The Porsche, for instance, is fetching anything up to £7000 over its £24,500 list price, due to scarcity value (only 40 are being imported into the UK this year) and protracted delivery delays (18 months or more).

The people benefiting are not authorised dealers, who have to retail the cars at list prices, but motoring 'ticket scalpers' who place their orders early then hope to re-sell immediately to wealthy latecomers.

Now rising in the East is a new Datsun model that will eventually replace the Cherry, with—for some markets, at least—a loud buzzer that warns all and sundry when the driver engages reverse. The noise may safeguard pedestrians, but it's **unlikely to impress** the neighbours late at night when a motorist backs into his drive...

Alfa Romeo, the Italian state-owned manufacturer with losses that **make BL look successful**, may be in financial straits, but work is still going ahead on a racing car that the company hopes will dominate Formula 1 next year. (Its 1978 effort—supplying engines for the British Brabham team—was notably unsuccessful.) Apparently the marketing staff still holds firmly to the view that success on the track sells cars in the showrooms quickly enough to justify the enormous cost. ●

You pays your money, and pays your money, and pays your money..

JUST OUTSIDE Evesham, on the B4084, there stands a curiously tiny cottage. It's for sale to anyone with an eye for imaginative conversion and a liking for motor vehicles, for it stands rather closer to the passing traffic than its rural neighbours. It was built in the days when the road, linking the market town to the important trading city of Worcester, narrowed here for the payment of tolls.

Like others up and down the land, it's a building no longer required for its original purpose. Drivers now travel on the majority of roads in this country without stopping frequently to pay directly for the privilege. And that's only right, for Britain's road-users pour £4000 million into government coffers each year via road tax and the punitive petrol taxes.

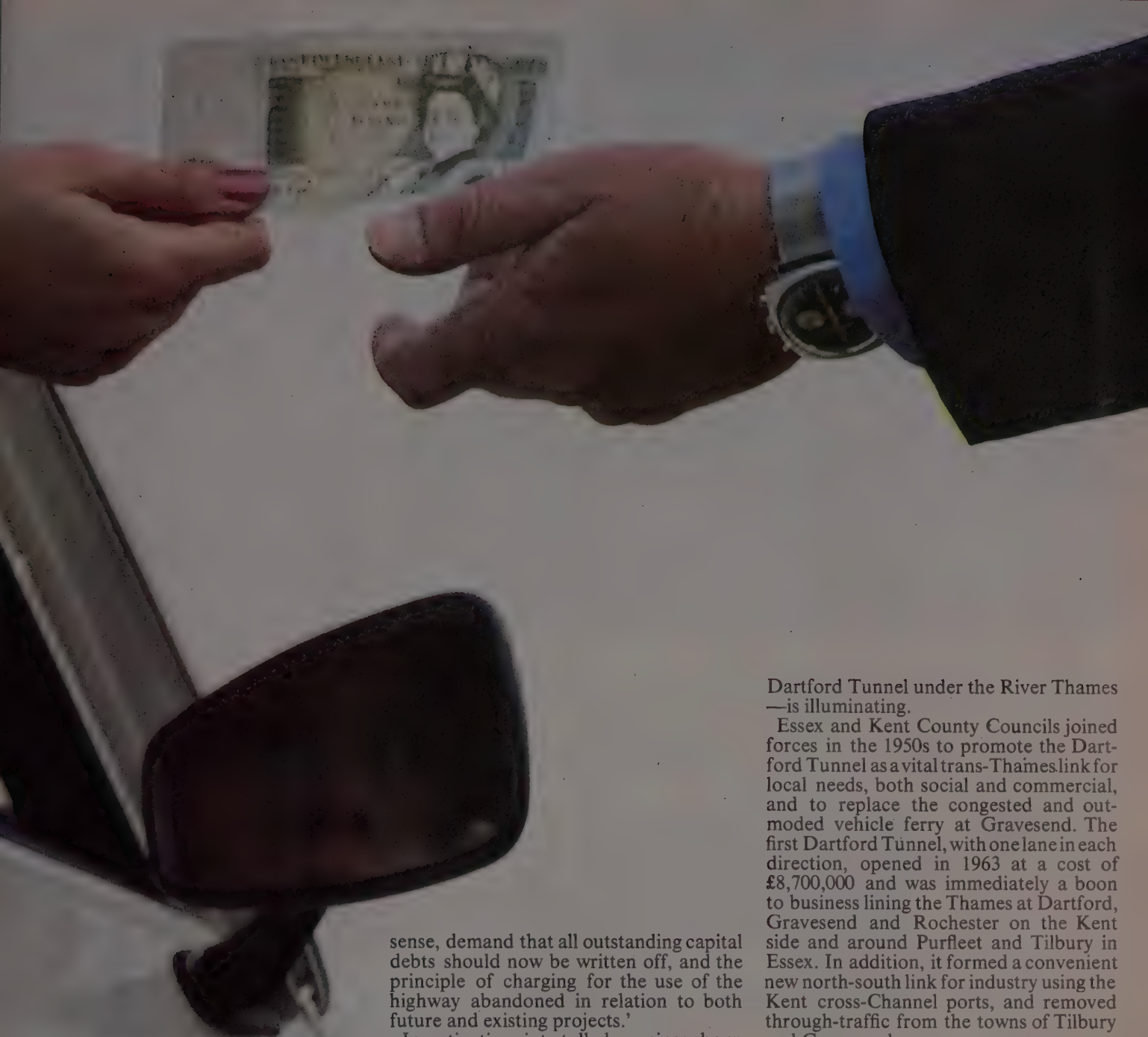
At one time, the piece of paper that we stick on our windscreens was called the road fund licence, and it paid for the

roads we used. Now, the tax is merely yet another contribution to the Treasury, and the road-building programme receives an allotment, in competition with education, social services and housing. The motorist is, in the words of Derek Dutton, the AA's manager of environmental affairs, 'in credit with the government'.

Nonetheless, we are still expected to stop, queue and hand over yet more money to pay for certain tiny links in the road network, thanks to continued government insistence on maintaining a toll system that many people feel strongly to be as out-moded as the old Turnpike Acts.

These links range from vital motorway sections to immense and costly new bridges of questionable value. But they have one thing in common: they are bridges or tunnels across estuaries.

Why estuaries are picked to be tolled



Dartford Tunnel under the River Thames—is illuminating.

Essex and Kent County Councils joined forces in the 1950s to promote the Dartford Tunnel as a vital trans-Thames link for local needs, both social and commercial, and to replace the congested and out-moded vehicle ferry at Gravesend. The first Dartford Tunnel, with one lane in each direction, opened in 1963 at a cost of £8,700,000 and was immediately a boon to business lining the Thames at Dartford, Gravesend and Rochester on the Kent side and around Purfleet and Tilbury in Essex. In addition, it formed a convenient new north-south link for industry using the Kent cross-Channel ports, and removed through-traffic from the towns of Tilbury and Gravesend.

The joint tunnel authority had to borrow most of the cash from the Treasury—if Kent and Essex wanted the tunnel, they were going to have to pay for it; there were to be no grants from the government roads programme.

The original toll charge of 12½p for private cars was not considered too high for a trip that saved a haul through the fringes of London to use the Rotherhithe or Blackwall Tunnel or the Woolwich Ferry, or when compared to the obsolete ferry at Gravesend, and the debt was being reduced on schedule . . . when things began to go haywire.

Pressure on the successful tunnel led to chaos at peak periods, so a second tunnel was proposed and planned. The Dartford Tunnel Joint Committee borrowed more money . . . and as of March 1977, £21 million had been spent on the more-expensive new tunnel, and at least another

sense, demand that all outstanding capital debts should now be written off, and the principle of charging for the use of the highway abandoned in relation to both future and existing projects.'

Investigations into tolled crossings show:

- virtually every major tolled crossing is losing money
- to repay construction debts (steadily rising in most cases), motorists have to pay ever-higher tolls—the alternative being that the crossings will *never* become toll-free, as originally intended
- increases in tolls can have the effect of cutting the number of tunnel- and bridge-users, forcing traffic back on to the roads and into urban areas that the crossings were designed to relieve
- tolls are seriously hampering labour recruitment for companies seeking staff on the opposite sides of estuaries
- people of limited means are being priced out of tolled crossings
- and haulage companies are having to put up charges because of toll costs and the increase in vehicle 'down-time' caused by delays.

Study of just one estuarial crossing—the

when other major road projects, such as the M6's Spaghetti Junction, are not isn't entirely clear. The premise, however, seems to be this: if a bridge saves a motorist a long journey, petrol and time, he should pay directly for at least part of the benefit—a cynical view, underlined by the fact that tolls are not imposed where diversions would result, or where traffic-flow is too small to justify collection.

But disregarding the fact that the motorist is being asked to pay for something for which, technically, he has already paid . . . the toll system simply is not working. Which is why the AA, other motoring organisations, road freight associations and local authorities now believe that it is time to scrap it totally.

The director general of the AA, Mr O F Lambert, in a letter to the Secretary of State for Transport, has stated clearly: 'Simple justice, and elementary good

£8million was likely to be needed before the tunnel's 1979 opening date. In the meantime, the users of the original tunnel continued to foot the bill: in August 1976, toll charges doubled to 25p one-way for cars.

It was a bombshell to local users, but it still wasn't enough. Rocketing interest charges and roaring inflation threw the mathematics of the tunnel further out of gear, and toll income couldn't even keep pace with interest charges, let alone pay off the construction debt.

To date, £3,200,000 of capitalised interest has had to be added on to the original loan. When the second tunnel opens, some £38million will have to be paid back in tolls, and if toll revenue is inadequate, the debt will increase daily.

The tunnel authority has applied to raise the private car rate to 35p, even though this is recognised as inadequate. Martin Pym, chairman of Kent transport planning committee, is quite frank: 'We're going to need 45p in a year or two, even assuming current traffic levels.'

Pym cannot count on maintaining these levels. Peter Hart, chairman of the Dartford Tunnel Users Association, which was formed to fight the original increase, says: 'When the charges were doubled, traffic-flow fell by 4% over the next 12 months.' By comparison, in the same year traffic-flow through the free Blackwall Tunnel, 12 miles upstream, rose from 420,000 vehicles per week to 432,000.

'The tunnel is pricing itself out of the

market,' says Hart bluntly. 'It's becoming more economic for many people to cross farther upriver. I know of several haulage companies now routing trucks differently, adding pressure on London boroughs.'

The tunnel is certainly pricing itself out of the life of Mrs Gladys Griggs, of Shirley, near Croydon. A widow on a fixed income, she can barely afford to keep a car on the road, but one of her main pleasures in life is to visit her daughters, both married and living in Essex. 'Any increase will seriously limit the number of times I can afford to visit them—and I do so enjoy seeing my grandsons,' she says.

Ron Blazely is a regular user of the Dartford Tunnel, along with 20 of his mates in the dockyards—and not through choice. 'We used to work in the London Docks, south of the river. When they closed, we were allocated to Tilbury, but many of us aren't going to be able to afford to continue in the industry.' For Blazely and his colleagues, a commuting toll of almost £5 per week will make a big hole in the wallet. For the average taxpayer it will mean earning almost £8 per week to pay the toll, not to mention normal motoring costs.

Labour mobility cuts both ways. On one side of the Thames are men who cannot afford to give up their jobs on the other side of the water, or to move. On the other side are employers, often desperate for skilled workers.

Van den Bergh and Jurgens has been

processing food at Purfleet since 1918. The new tunnel should have been very good news, but, as spokesman Peter Lowne explains, there are problems. 'We need people from Kent, skilled tradesmen whom we can't recruit in Essex. The tunnel is a positive disincentive: £7.50 of their pre-tax earnings goes in tolls.'

Queuing at often-undermanned toll-booths brings long delays, too, affecting employee punctuality and transport costs. Van den Bergh last year paid out £3639 in Dartford Tunnel toll fees for its trucks. 'Hauliers are often faced with long queues,' adds Lowne. 'They frequently re-route via the London crossings.'

Although a tunnel, and its incorporation in an orbital-roads scheme, has been in mind since the 1920s, local users are most recently upset by the use of 'their' tunnel as a link in the M25 southern motorway loop around London. Martin Pym and his colleagues in Kent and Essex county councils believe that, if the government wants the tunnel as a motorway link, it should take it over. But the response from the Department of Transport, says Pym, is: 'Sorry, you clear the debt, and then we might take it over.'

It's an attitude that angers local people such as Peter Ivens, of Otford, Kent. 'The local user doesn't need a second tunnel. We're being asked to pay for a national road scheme,' he says, and his indignation is understandable. Obviously it is impracticable for the joint tunnel authority merely to run up a mounting debt by

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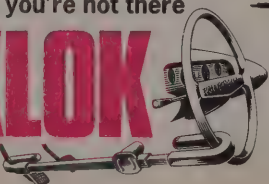
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adding losses to the original cost . . . so the final responsibility for paying off the deficit lies at the door of Kent and Essex ratepayers. In fact, parliament's committee of public accounts has said that the Department of Transport should take early action 'to review toll levies or to issue precepts on local rates'.

Soaring construction charges, increased interest rates and inflation have exacerbated the problems of all tunnel and bridge authorities that—apart from the Severn Bridge, which is a DoT responsibility—are the single or joint responsibility of local authorities. All are in a mess, with the one exception of the Tamar Road Bridge, which is remarkable in two ways. First, it was financed by local county councils from private sources—not from Treasury loans. Second, it makes money.

Current debt on the Wallasey-Liverpool Mersey Tunnels is calculated at £52million. Every year the books fail to balance to the tune of another £4million. 'We've just been capitalising the losses,' admits Merseyside spokesman Nigel Green, 'but obviously we cannot keep doing this.'

Merseyside CC is heading a consortium of tunnel and bridge crossing-operating local authorities, hoping to persuade the government to freeze existing tolls, and in fact reduce those that are so high that traffic turns away. If they cannot, the solutions are depressing—and, of course, may turn out not to be solutions at all.

Take charges, for example: successive governments have exercised pressure on tolled-crossing operators to keep tolls down, and some have indeed maintained a low toll level for more than 10 years. Now, the DoT seems willing to allow toll operators to charge as much as is necessary to take themselves out of the red.

On Merseyside, there's real doubt that this can ever be done. A recent proposal to raise the single-crossing tunnel toll for cars from 25p to 45p raised a howl of protest. The proposal was dropped, and a modest—and inadequate—lift to 30p is now being requested.

'There would definitely be resistance to 40p or more,' admits Nigel Green. 'Already, the tunnel charges are affecting Liverpool shops. There's evidence that families from the Wirral and Wallasey simply are not prepared to pay 50–60p to travel into the city to do their shopping.'

'I can't blame them. The tunnels are proving detrimental to the economy and the cohesion of the region, though they started out to unite it . . .'

Transport secretary William Rodgers has promised the consortium that he will take up its case with the Treasury and other government departments to see if charges can be kept at a 'reasonable level'. Merseyside, like Kent and Essex, also feels that its second tunnel should be accepted as a government responsibility since it is a vital link in the M53.

Faced with insufficient revenue to pay its way, and an almost certain fall-off in traffic if it charges what it ought, Merseyside is this year having to earmark

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£3,400,000 from the rates against a possible subsidy for almost-certain tunnel losses . . . and burdening local rate-payers for a facility that is supposedly as national as the road network is something that all local authorities dread.

Nonetheless, this is a fact of life that many authorities now have to face. *Vital* links, such as the Severn Bridge and the Dartford Tunnel, will continue to be used by the majority of current users, grumble though they may; but this will not be true of many tolled crossings, whose cost may never be reconciled with income.

The new Humber Road Bridge is dubbed by the AA's Derek Dutton as 'the biggest white elephant of all time'. It is also one of the most expensive. When it opens, next year, it will be the longest single-span bridge in the world—and probably one of the least used.

Compared to the Humber bridge, all other tolled crossings pale into financial insignificance. Originally costed at £28million, it is likely to top £80million by the time it comes into service. And for what?

The bridge will link Hull with the north Lincolnshire coastal ports of Grimsby and Immingham, but the need for the link has undoubtedly been over-emphasised. Peter Donnison, head of the Yorks and Hull branch of the Road Haulage Association, declares: 'It's a bridge to nowhere, so far as we're concerned.' A Hull haulier tells *DRIVE*: 'Only one in 20 of our trucks goes to Grimsby or Immingham.' And with charges for heavy-goods

vehicles scheduled to hit £6.50, there's every incentive for hauliers to re-route.

Spokesman for Humberside County Council, Paul Clark, admits frankly that 'the Humber Bridge does not link a major north-south route. Most through-traffic will use the M62 linking Hull to Leeds—that's been the major benefit.'

It all adds up to the fact that this most expensive of tolled crossings is going to need to rely on local traffic to pay its way, and Dutton estimates a toll of £1 for cars, just to prevent the debt from rising.

A study of traffic-flow, commissioned by the bridge authority, has in fact found that it needs to charge up to £1.10p, but the initial fee is being pitched at 80p—the lowest recommended if the bridge is to be paid off in its allotted 60 years.

It's hard to see that local people need the link *that* badly: £8 per week for commuters, or £1.60 a return trip for shoppers and social motorists, is a stiff proposition. The AA's view, certainly, is that such a charge will stop people using the crossing, especially where there are reasonably convenient alternatives.

In summary, the AA believes that toll charging is a totally outmoded concept. We are blessed, in this country, with a reasonable network of cross-country motorways for which—unlike those of France, for example—we do not have to pay tolls. These incorporate large and costly individual engineering projects, including major river crossings, which are not subject to tolls. *So why pick on*

estuarial crossings to soak the motorist?

The government has no easy answer, other than that 'there are always alternatives readily available to a motorway . . . but, in the case of an estuary, this is not so'—the words of Sir Peter Baldwin, permanent under-secretary at the DoT.

As for the sums involved, the *total* deficit is expected to be £200million when the Humber bridge opens. A lot of cash—but a small sum when set against the £4000million that UK motorists contribute every year to the Exchequer in motoring taxes—a figure that in fact exceeds that on road expenditure by something like 2.3 to 1 in the current financial year.

The overall picture is clear. Unless there is pressure from the public for tolls to be cleared, these links in the country's road network may be paid for several times over—by vehicle owners through motoring taxes; by users of the crossings in tolls paid; and by local residents through precepts imposed on their rates.

In the AA's view, now is the time to write off this national debt, and to free all crossings from tolls—before that debt rises to even more ludicrous and unapproachable proportions.

Dutton points out that the inter-urban motorway and major road network is now well on the way to completion, and that this would indeed be a logical time to expunge the burden. *And* there are precedents. 'If the government can write off huge railway debts,' he says, 'why not these road debts, too?' MIKE HILL

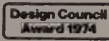
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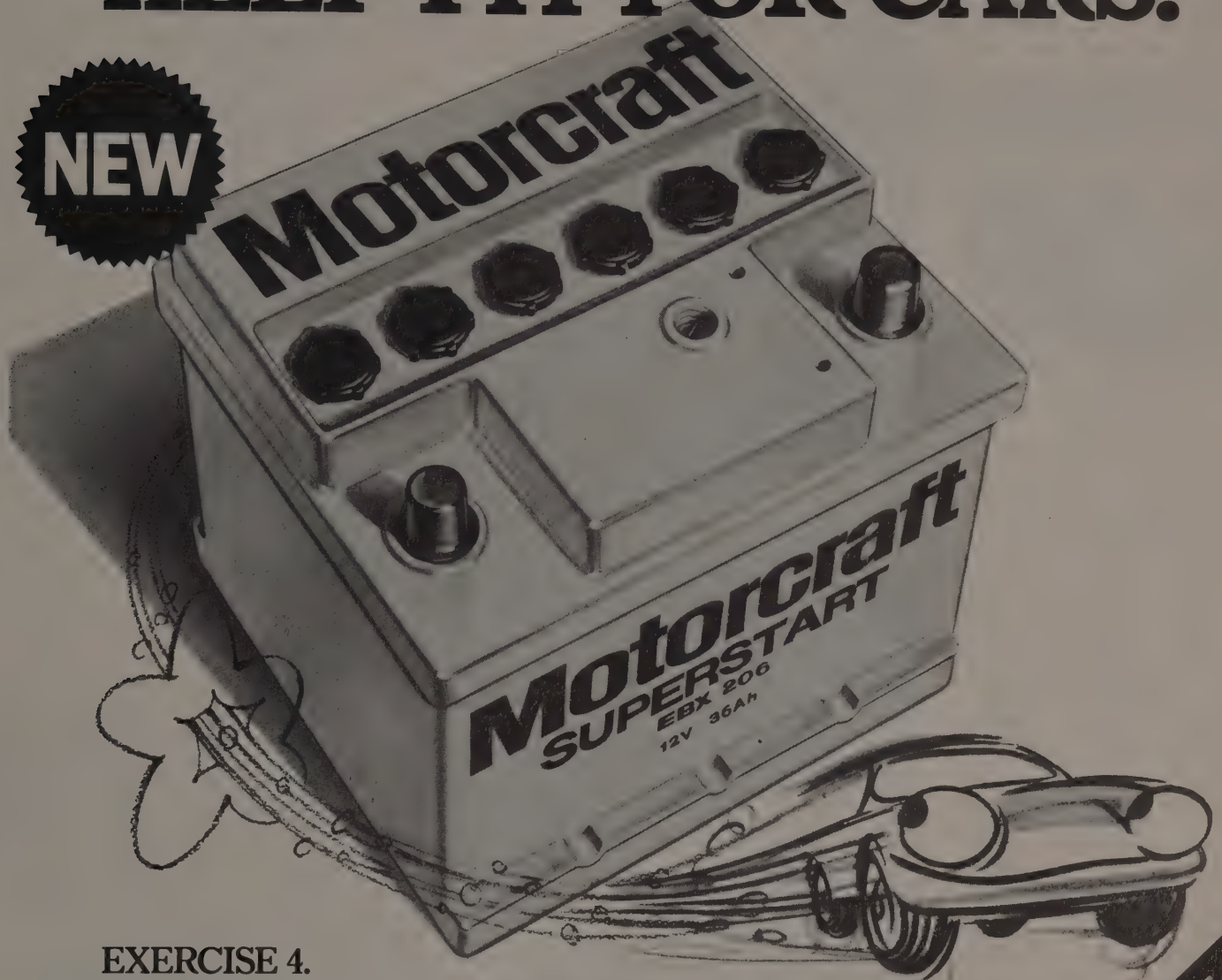


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HER MAJESTY'S PLEASURE

Once upon a time, seven streamlined beauties with the humble family name of 18/22 were born into the kingdom of the then BLMC. They bore the heraldic devices of Austin, Morris and Wolseley, but their striking appearance was not enough to conceal their occasional spasms of ill-health. Even their elevation to the title of Austin/Morris Princess was not enough to disguise one sister's serious malaise of the half-shafts, and the powerful 2200HL manual withdrew from public life some months ago.

Now, after some major surgery, the second-generation Princesses are here—determined to prove their fitness with the aid of new O-series 1700cc and 2000cc engines. But big sister is back, too, with the familiar 2227cc E-series engine. DRIVE requested an audience . . .

How it goes

This Princess boasts the only transverse-mounted six-cylinder engine in current production, and its in-line design makes for vibration-free and flexible power—qualities missing in many more-prestigious V6s.

A silky mover at all times, the

Princess can glide from below 20mph in a top gear that also manages to be spritely at the other end of the speedo, its 30–50 mph time of 10.4sec beating the BMW in this group by almost a second. The big engine is also eager to howl on to 6000rpm and a top speed of 103mph, in defiance of the pundits who declared this power unit backward at birth.

Through the gears, progress is more matronly, an indifferent 0–60mph time of 13.8sec being partly explained by a gear change that, though less obstructive than of old, still has a weighty don't-rush-me feel. Once at the motorway speed limit, however, the car almost lulls the driver with its absence of tyre noise, wind roar and rattles. And the half-shafts are reassuringly quiet.

The Princess's drinking habits are appropriately restrained. At 27½mpg overall, it's the most economical car of this test trio, and even matches the consumption of many smaller four-cylinder cars. More than 30mpg was achieved without effort on long, steady runs, and a creditable low of 21mpg when commuting. Combined with an easy-filling and generous 16gal tank, the Princess can undertake really grand tours.

But a sporty type this 2200HL is not, despite improvements to its Hydragas suspension that have curbed a Mk1 habit of rolling and plunging during fast cornering. Its radial-ply tyres grip tenaciously even in the wet, and, when the front wheels do eventually allow the car's nose to drift wide of the planned course through a corner, it's a polite hint to ease off the accelerator, whereupon dignity is

restored without drama. Such good deportment is welcome, for the 2200's standard power steering is insipid and uninformative.

The occasional thump and jolt from the road in fact made DRIVE's testers wonder whether the Hydragas system was worth inventing. Like a big Citroen, the Princess is less composed when caught on the rebound than when under strain—undulating roads make it feel soggy and underdamped. In steady motoring, however, Hydragas can smooth the Princess's passage over most road surfaces.

Stopping is made easy by a front-disc/rear-drum system that's commendably resistant to heat-fade—if a little over servoed and oversensitive to a soaking. While Princess drivers are avoiding fords, they should also shun steep hills:

Everyman Report

Each issue, DRIVE turns four amateur drivers loose on the test cars to discover the virtues and vices that the professionals miss. This time, the Everyman Panel comprised Denise Bewsy, 21, an office manager from St Albans, Herts; Basingstoke, Hants, housewife Joan Phillips, 25; David Everest, a 30-year-old Heathfield, Sussex, company director; and Roy Kidman, 55, an insurance broker from Weybridge, Surrey. The Princess seduced three of them . . .

'I could live with that car,' said Denise. 'It was so nippy compared to the other two, and the instruments are well laid-out.'

'I felt very safe in it,' said Roy. 'The roadholding and handling are good. I don't like front-wheel-drive cars—maintenance can be very expensive—but if I needed a family car I'd choose the Princess.'

'It's got a typically horrid front-wheel-drive gearbox, funny steering and a noisy engine,' said David. 'But it is the best of three horrible cars . . .'

Joan disagreed about the steering: 'Its power-assistance makes driving easy, and the engine has a lot of guts. I even like the body shape.'

an unladen Princess parked nose-down on a 1-in-3 has been known to glide majestically forward.

Inside story

Both fore and aft seating in the Princess is palatial, and there's little to choose between them for comfort, although the driver's seat cushion on the test car was sagging after 4000 miles, and its coarse adjustment for height was of little help in letting our testers see the tip of the car's droop-snoot or truncated boot when parking.

Austin Morris has missed its chance to eradicate the severe reflections in the instrument-panel glasses, but the new HL does benefit from the superior HLS's facia. The central speedometer is flanked by a large clock on the left and gauges to the right, with six warning lights scattered above and below; all dials have dual-intensity lighting.

Controls are sensibly planned around two stalks that sprout from the steering column, the left operating the wash/wipe and the right the indicators, horn and main beam. Rocker switches for all other functions are neatly grouped on the right of the facia, and lit at night by fibre optics.

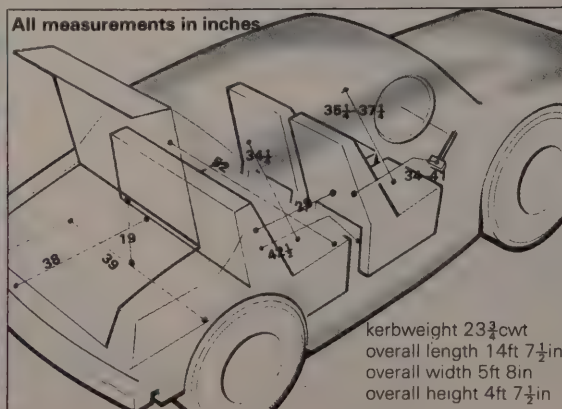
The HL Princess pampers its passengers, too, with such standard niceties as strong door-checks with halfway stops, a cigar lighter for rear-seaters, and twin audio speakers mounted in the front doors. DRIVE's only niggle is that the new-style armrest/grabhandles are too short for comfort.

Why is this stylish wedge still a booted saloon when it's perfect for a hatchback-job? The existing boot space is acceptable, but its restricted aperture is narrowed even further by a vulnerably sited courtesy lamp. A large rear-window shelf, facia boxes and a carpeted cavern under the rear seat all help to make amends.

Heating is effective, but its demisting powers are minimal when the face-level cold-air vents are in use: it really is time for the vent control to be graduated, instead of the present all-or-nothing gamble. Fortunately, one happy by-product of the wedge's airflow is that it can be driven with a window lowered without the risk of a hair being ruffled.

The Princess 2 is only the second British car to adopt the Triplex Ten Twenty laminated wind-screen as standard—an important advantage for those who value its injury-prevention qualities—yet Austin Morris goes on to skimp on roof and screen-surround padding. The inertia-reel seatbelts fit well, but one tester consistently banged his gear-change elbow against the belt's centre stalk.

The test car had optional head restraints that proved convenient





Gilt-edged stock?

and didn't totally obscure rear passengers' forward view. Outside, indicator repeaters on the front flanks are invaluable, for the Princess's front and rear indicators are invisible from the side.

Living together

Some effort has been made to improve rust prevention, with chip-resistant paint along the sills and less rust-inducing body brightwork. But, while the chrome on the flimsily mounted bumpers now looks better, it can't be as good as the plastic and stainless steel that many rivals use. The test car's paint also displayed minor blemishes and flaws.

Underneath, the wheelarches are lined to prevent mud accumulating, and a bitumastic sealant (not DRIVE's favourite—it doesn't last like pvc) was usefully, if unevenly, applied. Wax injection into box sections had managed only 50% coverage—there was rust on the fuel tank and the boot's guttering.

Engine access is good, with only twin carburettors and infrequent overhead-camshaft adjustment to worry home mechanics. The 2200 continues to use an alternator drive-belt that can easily be adjusted (unlike the new O-engine's arrangement, which makes it a workshop-only operation). The handbook is clearly written, and all the tuning settings are given. Servicing is due every 6000 miles—a bit more onerous than some—and the distributor still uses contact-breaker points.

DRIVE took an instant dislike to the new cropped-nylon seat trim: it really is hard to brush clean. The carpets fit well, although they cannot easily be removed.

Insurance companies love BL cars, and they give this Princess an advantageous Group 4 rating. Of late, car dealers have felt differently and it has lost value heavily—twice as quickly as its Datsun rival. Overall depreciation is still acceptable, however, as the Princess remains very good value.

Latter-day Princesses have to *earn* a loyal following, and, with this car's ancestry, that's an uphill job. Remember the Austin/Morris 1800? An advanced design prematurely launched, its reputation was wrecked by teething troubles. The Mk 2 was worth owning—but who, by then, wanted to know?

History is now threatening to repeat itself. The Princess 2 has emerged from finishing school with some of its older sister's rough edges smoothed off, but retaining the best qualities of the breed—space, comfort and style. Its low overall costs make the BMW 520 look wildly extravagant, and it can run rings round the lead-footed Laurel. It only remains to convince the public...

BMW 520

Price £6749 On the road £6899



HAPPINESS ONLY MONEY CAN BUY

Remember the advertisements for BMW cars that showed a yellow blur flashing past a police car and motorcycle? The headline—'It takes one to catch one'—alarmed road-safety experts, but some police forces did take the hint...

It was more than just an image of sophisticated power. Two years ago, BMW was able to boast that its marque was the most popular personal transport among 28 top racing drivers, ahead of fellow-German rivals Mercedes-Benz and Porsche and not to mention foreigners such as Ferrari.

BMW's special ingredient seems to be a dash of calculated excitement to spice a car that's built to the standard you'd expect from a former aero-engine manufacturer (its badge is a stylised aircraft propeller). But few exotic firms can survive without a bread-and-butter model, and the 520 is BMW's idea of 'convention'.

It arrived in 1973 to a fanfare of rave reviews from the motoring press—with the aside that it was rather too expensive at £3000. In 1978, the same car costs around £6750, and there is only one real difference—two extra cylinders.

How it goes

Not content with having the smoothest of four-cylinder engines to propel the 520, BMW now fits a new in-line six, more powerful than its carburetted predecessor.

An automatic choke makes cold starts easy, yet, faced with a warm engine, the starter sometimes churns for a full five seconds. Once under way, the 520 can be a disappointment to those who expect all BMWs to fly. It is, after all, a non-sporting saloon by BMW's standards, and its mixed performance is typically 2litre.

The 520 can hold off both the

Princess and Datsun through the gears, but its lethargic top gear can be embarrassing, 30–50mph taking 11.3sec.

This BMW is more of a long-distance runner, for, given time to wind itself up, it will deliver 109mph with the straight-six working as smoothly as ever. DRIVE's testers reached an indicated 115mph, but the rev-counter's ignition cut-out thwarted any improvement.

It's fortunate that BMW gear shifts have been classed between 'brilliant' and 'superb', for the unsporting ratios need a good stirring to goad the 520 to action. First gear will appeal to those who live on a 1-in-3 hill, and the intermediate gears err on the high-ratio side, with 89mph available in third. Apart from a rather unrefined buzz from the gearbox when asked to haul from 20mph in fourth, the only noise to be heard in DRIVE's tests was that beloved of all BMW drivers: a healthy snarl from the engine when it's revved to where the power lurks.

BMW owners don't usually worry overmuch about petrol prices, but DRIVE's testers do,

and they found the 520's thirst a liability. Five years ago, the AA achieved a creditable 29mpg overall with a fuel-injected four-cylinder 520. Since then, other manufacturers have got it right, too, and there are now plenty of 2litre saloons that approach 30 mpg. But this latest BMW could deliver only a 24½mpg average.

The engineering recipe for BMW's suspension may be traditional, but no other manufacturer mixes it to the same degree of excellence. Some cars may corner as well as the 520; others may equal its ride; but somehow this German's all-independent set-up does both—beautifully.

On main roads the ride is tranquil, cushioning shocks without excessive wallowing or rolling, just as a well-bred family saloon should. Unlike many such cars, however, the 520's neutrally-balanced handling helps the skilled driver to push the car hard through corners, too.

AA testers don't normally approve of a family car that swings out its rear at the limits of cornering grip, but when the 520's tail hints at overtaking its nose it is so easily corrected that such gentle oversteer can actually help the driver to push along winding roads without slaving over the steering wheel.

DRIVE also had a brief session in a 520 fitted with power steering, an option that failed to impress the testers: its uninformative 'feel' could undermine some drivers' confidence. Without the power, the 520's worm-and-roller steering can be heavy at low speeds, but its 'feel' is marvellous.

Worn tyres on the test car probably affected its braking figures—a best stop of 90% is poor by today's standards.. (BMW's 5-Series cars usually return a 100% stop.) Braking was over-servoed, too; no ordinary driver applies delicate brake-pedal pressure in an emergency, so the 520 must be criticised for its best stop occurring at an over-light 40lb.

In other respects, though, the brakes are good, getting a little

Everyman Report

The price of the BMW worried the thrifty owner-drivers but, that apart, it was still an also-ran...

Denise Bewsy confessed: 'I came to it thinking all BMWs were magic, and I was disappointed. While it's comfortable, it's also sluggish.'

'It was a disappointment,' agreed David Everest. 'The performance isn't BMW. Over the first five miles I thought it felt nicely set-up, but push it hard and roadholding becomes very untidy.'

Roy Kidman disliked the steering: 'There's a delayed action, followed by a backlash. I'd consider a BMW if it had a bigger engine, but this one is already too expensive.'

'Much too expensive,' said Joan Phillips. 'But I loved its styling, inside and out—so classy. The seats lacked support, though. I had expected better.'

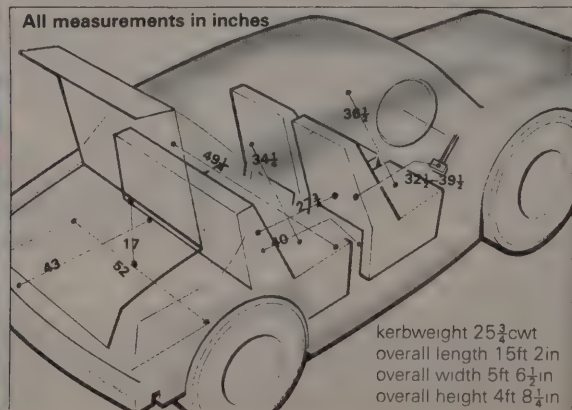
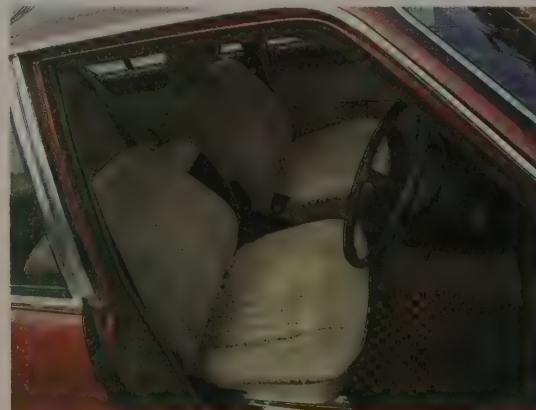
lighter when gently warmed, and heavier when fiercely cooked. They soon recover from a soaking, but drivers should beware of watersplashes: the low air cleaner can suck water into the carburettor. We learned the hard way...

Inside story

If BMW cars are expensive, they do at least look the part. And, inside, the sober opulence is reminiscent of a bank's boardroom.

BMW led the way in designing instrument clusters, and the Germans are still ahead of the bandwagon, with the 520's instruments attractively grouped behind a single sheet of curved glass that avoids the annoying reflections suffered in lesser cars. At night, a gentle red glow—rheostat-controlled—illuminates the panel clearly but restfully.

All the instruments are impressively accurate: the fuel gauge with its low-level warning light, the speedometer with gear-change points marked at 55mph and 84 mph, and the tachometer red-lined at 6400rpm. Surprisingly, there's no oil-pressure gauge—



just the low-pressure warning light. A smart centre console houses the rear screen heater switch, a cigar lighter, accurate quartz clock, and the comprehensive heating and ventilation system. Two column stalks—indicators on the left and wash/wipe on the right—complete the controls.

Some testers complained that the driving seat was too hard—a fault compounded by a lack of lumbar support. Long-legged drivers also lacked rearward seat adjustment, and shorter beings felt that either there was too much thigh support or the accelerator's angle was wrong; in any event, the result was an aching right knee. Rear-seat passengers ought to enjoy greater comfort, but the general criticism again was 'too hard and the wrong shape'. Actual room is adequate, even if it looks poor against that of the Princess.

There is, however, plenty of oddments space, ranging from a console bin to handy door pouches,

and the boot is in the luxury class—well shaped, plastic-lined and carpeted, its only drawback being the familiar one of the spare wheel under the floor and any luggage.

Years ago, BMW realised that drivers can drive better when their faces are in cool air and their feet are kept warm. The pioneer's aim now is to give large quantities of fresh air without causing draughts—and at any desired temperature. A separate system provides warm air for demisting and defrosting windows.

The heavily built 520 scores highly in DRIVE's safety checks, with just two exceptions: the fuel tank looks vulnerable to a rear-end shunt; and both the roof and top screen-rail need more padding. It is still very unusual to find inertia-reel seatbelts fitted as standard in the back and front, for which BMW earns full marks.

Living together

You may have to re-mortgage the

house to buy your BMW, but it should be just as good an investment, for each model that DRIVE tests is better than the last.

The 520's paint finish was good, and the company has been equally conscientious underneath. Sills and front stone-guards have a good coat of chip-proof pvc, and wax injected into box sections can be topped up via neatly-grommeted holes. Pvc has been used extensively underneath the car; wheelarches are contoured to avoid mudtraps; and what rust-attracting brightwork there is is plastic-mounted.

If there is such an animal as a DIY BMW owner, he'll be delighted with the set of hand-tools mounted inside the bootlid. There's just one snag: the plug spanner is too short to work on this latest engine layout. Generally, however, most service items are easy to get at, and BMW has gone some way to avoiding unnecessary complexities (though

it's surprising to find conventional contact-breaker points).

There should be no special valeting problems but, on DRIVE's car, the fabric seats were already looking under the weather. Carpets prove amenable to a stiff brush.

The very high price of BMW parts is reflected in the car's insurance rating—the top Group 7—and in its total depreciation.

DRIVE likes to group test cars into some semblance of a price bracket; but price can be a factor that some buyers are prepared to ignore in their search for quality.

Testers who lived with this BMW for more than a day learnt also to live with its lack of pulling power in fourth and the initially unconvincing seats, being wooed by the superb ride and the responsive handling. The 520's only sin in most motorists' eyes is its disregard for the price of 4-star. But if you're spending around £7000, do you *care* about the pence?

Datsun Laurel Six

Price £4348 On the road £4458



LAUREL YES, HARDY MAYBE, SILENT MOVER NO

While European manufacturers can count virtually on their chairman's fingers the number of popular cars that they export to Japan, there are no such worries in the Land of the Rising Sun. Datsun, for example, has grown from making imitations of the Austin A30 and A40 to become Britain's biggest importer of cars.

Now, Datsun has landed heavy reinforcements in the shape of the new Laurel Six—its second-most expensive saloon. 'Nothing has been sacrificed that makes for comfort, safety or ease of driving,' boasts Datsun. Will the Laurel be the wreath on the coffin of the British motor industry?

ring lies Datsun's 1998cc six cylinder engine. It's an obedient starter, though it's surprising to find, in a fascia full of gadgets, a humble manual choke that also lacks a warning light for the forgetful driver. Once warm, however, tickover is so smooth and silent that drivers have to study the rock-steady rev-counter needle to confirm that the motor is running. But this initial impression of tranquillity was modified somewhat during acceleration tests...

This is one Laurel that's unlikely to go to any boy-racer's head. It makes such a fuss getting up speed that DRIVE's amateur test Panel was tempted to dismiss it as sluggish. Certainly, over 5000rpm it sounds uncouth; but, with cotton wool in the ears and gear-changes delayed until the

tachometer's red-lined 6300rpm mark, the Laurel can lurch from 0–60mph in a respectable 13.7sec—on a par with the Princess.

Even with a surge from the sometimes-hesitant, twin-venturi Hitachi carburettor, however, a top-gear 30–50mph takes a lethargic 12.3sec, and the Laurel's reluctant maximum of 96mph is achieved only to the raucous accompaniment of wind noise, exhaust boom from 50–60mph and drive-line tremors. And, by the end of DRIVE's standard performance tests, the Laurel had noticeably wilted, making the sort of noises you'd expect of a high-mileage motor.

The Laurel's average thirst is, at 25 miles per 2-star gallon, marginally less greedy than the 1½cwt-heavier BMW, but profigate compared to the Princess. Short trips to the office return a low of 20mpg and, try as they could, DRIVE's testers could not quite reach 30mpg even in quiet rural rambles. Thankfully, its 13½ gal tank gives a range of 300 miles.

We have little but praise for the lightness and precision of most Japanese gearboxes, and, despite occasional baulking into first from rest, this four-speed Datsun offering is well up to standard—preferable, in fact, to the BMW's rather rubbery gear change and the Princess's ponderous action. The clutch, on the other hand, was jerky on take-off.

Datsun is trying hard to trim the Laurel's ride and handling. The latest models have a revised suspension, with coil springs replacing semi-elliptic (cart) springs; but buyers in this price-bracket expect—and deserve—more. Even on a smooth motorway, the car can be provoked by the smallest of

bumps and dips into a sharp vertical reaction. Curiously, the Laurel redeems itself when it meets major bumps at high speed.

Opinions of the car's handling vary with its direction of travel. Drive it quickly round a lefthand bend, and petrol fails to get to the engine—a design fault that effectively limits anti-clockwise cornering speeds! On righthand bends, it powers on, running wider—as a modern saloon should—as speed increases. In dry test-track conditions, the rear wheels never threatened to uproot, making for safe, if uninspiring, handling.

Some steering 'feel' filters through to the driver at the limits of cornering but the system is heavy when parking and vague around the straight-ahead position.

Brakes are a conventional set-up of servoed front discs and rear drums, which works well, with good progression up to a best-stop of 95% efficiency at a slightly hefty pedal pressure of 80lb. They're quick to recover from fading, too, but a soaking does them no good at all.

Inside story

If you've ever fancied commanding the Star Ship *Enterprise*, the Laurel's sci-fi instrumentation should appeal. (Though there may be some who will mourn the passing of earlier Datsuns' ornate scrollwork, reminiscent of Roy Rogers' saddle.)

Easily seen through the two-spoke steering wheel are a square-faced tachometer and speedometer, flanked by similarly squared-up groups of warning gauges and lamps, including one to indicate an unlocked door. The centre console is packed with such

How it goes
Beneath a bonnet that's big enough for a Japanese wrestling

attractive standard goodies as a quartz clock, a good cassette player and an indifferent radio.

Atop the adjustable steering column squat two hooded lamps—Datsun's fuel-economy indicators. Operated by the inlet manifold's vacuum, they give the driver the green light when his fuel consumption is low and an orange one when it's more greedy. Cunning testers managed to obtain the green light at 90mph, and even both lights simultaneously. On the other hand, newcomers to the gadget have been known to dash to the nearest garage and pour in unwanted oil in an attempt to quench the ominous orange lamp... While it looks good in the saleroom, and might restrain a hell-for-leather driver, the 'aid' is of dubious value.

Economy lamps apart, all the minor controls are clearly labelled and convenient to operate—thanks partly to the Japanese, like us, driving on the left. A stalk on the right of the steering column controls lights and indicators, while a chunky wash/wipe knob on the left operates two speeds, an intermittent action, and a useful triple-wipe for each wash.

Visibility from the driver's seat is claimed to be better than in Laurels of old, but it could and should be improved. Rear three-quarter vision is the problem, for only the tallest drivers can see where the rear of the car ends; others have to navigate by the fibre-optic head- and tail-lamp indicators on all four corners.

Testers complained of the driving seat's lack of rearward travel, but back-seat passengers enjoyed good back support and acceptable legroom—though the diagrams show that the last isn't a patch on the Laurel's two rivals. Storage room is par for the price-bracket, with a lockable, illuminated glovebox, a cubby-hole under the front armrest and a large parcels shelf behind the rear seat. Boot capacity is good, once its high lip is negotiated, but the spare wheel is in a well beneath any luggage.

Japanese heaters are usually as excellent as their steering systems

are poor. The Laurel's two slider-controls are legibly marked and illuminated at night, distributing warm air just where you want it—including to the side windows. When it's all aimed at your feet, however, some warmth still leaks through to the screen, and the noisy 3-speed fan robs the outer vents of cooling air, making it difficult to achieve a cool head and warm feet. Rivals please note, though—warm air is also piped into the rear footwells.

Despite the lack of childproof rear door catches and a laminated windscreen, the Laurel does have some good safety measures. The headlining is well padded, rubber mounts are used for the sunvisors and head restraints are standard. Inertia-reel seatbelts are both comfortable in use and easy for one-handed operation, with reels tucked out of harm's way inside the central pillars.

Living together

Datsun promotes the Laurel on the 'impressive' clunk of its doors. But far from impressive was the rust that DRIVE discovered inside the doors of a 12,000-mile test car.

Apart from primer, the Laurel has no underbody protection at all (Datsun admits that the black 'gunge' applied to some areas is purely for sound-deadening), so long-term Laurel owners must allow in the purchase price for the cost of a commercial rust-prevention treatment, or risk developing the troubles that DRIVE found—rusty box sections and seams. Our only praise is for the lack of serious mudtraps and the plastic wheelarch liners.

The Laurel is easy for DIY work, with its simple mechanicals, helpful handbook, and a generous toolkit that includes wheel chocks. The scissors jack has an easy action, but you do have to get on your knees to position it.

In wet weather, the Laurel's exterior manages to keep itself clean, though the fussy grille is an ideal flytrap on summer days. Inside, the corded upholstery on DRIVE's test car was already looking shabby, and it proved difficult

Everyman Report

The 2litre Datsun found no friends at all on DRIVE's Everyman day...

Denise Bewsy was vehement about its steering: 'Lousy. Too vague—the Laurel went all over the place. I quite liked the gear change, though, and the extensive instrumentation, but I'm not keen on square dials.'

'The engine sounds very overworked, the car has nil performance and the fascia is terribly gimmicky,' said David Everest. 'Both ride and handling, though, were better than I expected.'

Roy Kidman liked the gears and found the instruments easy to see. 'But the economy indicator didn't help. It's not sensitive enough and stays green virtually all the time.'

'The outside looks like a chromed tank,' added Joan Phillips. 'The boot may be big, but the sill is too high to lift anything heavy over.'

to clean, even with a quality shampoo. Irritatingly, carpets cannot be removed for cleaning.

No doubt about it, the public's trust in things Japanese does help to keep secondhand prices buoyant—an asset reflected in DRIVE's loss-of-value figure for the Laurel. Insurance companies, however, place the car in Group 6, making it considerably costlier than most of its UK rivals.

'Nothing has been sacrificed that makes for comfort, safety or ease of driving' did the man say? Well, DRIVE discovered sacrifices in all three departments—and more. In fact, this Datsun's one virtue—mechanical reliability—is taken for granted by today's discerning driver, who expects refinement and versatility of ride and handling, too.

Like an undistinguished Christmas tree, the Laurel needs its pretty lights to help it shine in the showroom, where the handbook's 12 pages of 'comfort and convenience features' certainly put some rivals in the shade. But, like the Christmas tree, its roots are firmly in the past...

PRINCESS 2 2200HL

Front engine: transverse 2227 cc/6cyl, OH (chain); twin SU carbs; 110bhp/5250rpm
Front drive: 4 gears, 18.8mph/1000rpm
Suspension: front—ind wishbones with Hydragas displacers, inter-connected to rear—ind trailing arms and Hydragas
Steering: powered rack and pinion, 3½ turns/37ft circle; 4½J wheels, 185/70SR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £47.45 (fitting 1.25hr)
exhaust £39.20 (1.25hr)
headlamp unit £31.90 (0.25hr)
front bumper £26.73 (0.8hr)
laminated windscreen £66.96 (1.45hr)
oil filter and points £3.26 (0.8hr)
major service 6000 miles (2.2hr av)

	per year	per mile
Running costs	£701	5.8p
Loss of value	£336	2.8p
Total depreciation	£1223	10.19p
Insurance group	4	

BMW 520

Front engine: 1990cc/6-cyl, OHC (belt); one 4-venturi Solex carb; 122bhp at 6000rpm
Rear drive: 4 gears, 18.4mph/1000rpm
Suspension: front—ind MacPherson damper/struts, anti-roll bar; rear—ind semi-trailing arms, coil springs
Steering: worm & roller, 4½ turns/33ft circle; 5½J wheels, 175HR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £87.32 (fitting 4hr)
exhaust £85.62 (1.5hr)
headlamp unit £15.11 (1hr)
front bumper (3 parts) £69.60 (3.5hr)
laminated windscreen £59.34 (1.5hr)
oil filter and points £4.81 (0.75hr)
major service 10,000 miles (5.75hr)

	per year	per mile
Running costs	£893	7.44p
Loss of value	£122	1.01p
Total depreciation	£1471	12.26p
Insurance group	7	

DATSUN LAUREL SIX

Front engine: 1998cc/6cyl, OHC (chain); one twin venturi Hitachi carb; 108bhp at 5600rpm
Rear drive: 4 gears, 18.02mph/1000rpm
Suspension: front—ind MacPherson damper/struts, torsion bars; rear—coil sprung live axle
Steering: recirculating ball, 5 turns/34½ft circle; 5½J alloy wheels, 185/70HR14 steel radials
Brakes: servoed discs front/drum rear

Parts/repairs (inc VAT)
clutch £49.04 (fitting 3.1hr)
exhaust £67.41 (0.7hr)
headlamp unit £17.64 (0.4hr)
front bumper £49.08 (0.4hr)
laminated windscreen £56.15 (2.9hr)
oil filter and points £4.13 (0.5hr)
major service 6000 miles (3hr average)

	per year	per mile
Running costs	£757	6.31p
Loss of value	£162	1.35p
Total depreciation	£1074	8.95p
Insurance group	6	

THE RIVALS CLOCK IN

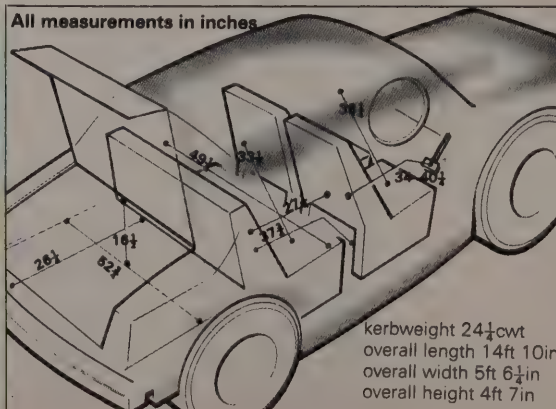
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Citroen CX2000

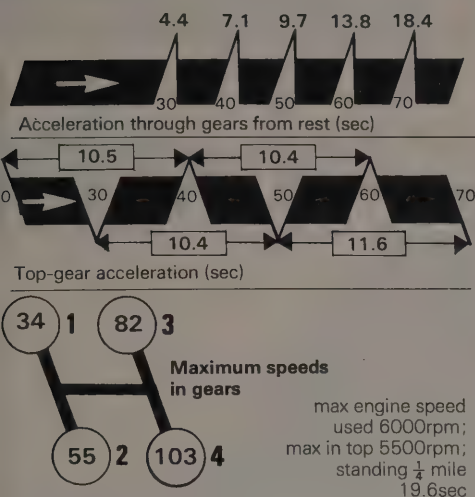
Saab 99GL

Peugeot 604SL

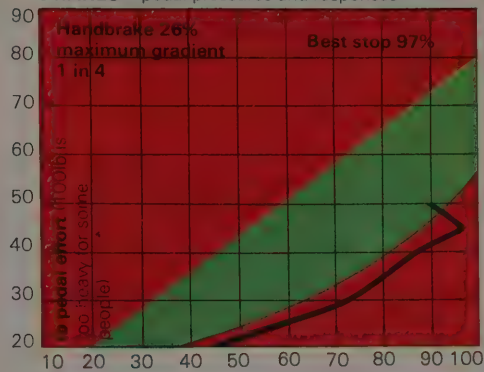
Ford Granada 2.3 auto



PERFORMANCE



BRAKES—pedal pressures and responses



% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)

Fade test pedal pressure needed for 75% stop (ideal car would show no variation)

35lb at start **30lb** in constant use **40lb** in severe use
Watersplash 80lb at first, **9** stops to recover

FUEL 4-star/97 octane min
overall consumption 27 $\frac{1}{2}$ mpg
effective tank range 400 miles/14 $\frac{1}{2}$ gal

Normal range of consumption

short journey, suburban	21mpg
hard driving, heavy traffic	23mpg
motorway—70mph cruising	26 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	28mpg
quiet rural—40mph cruising	31 $\frac{1}{2}$ mpg

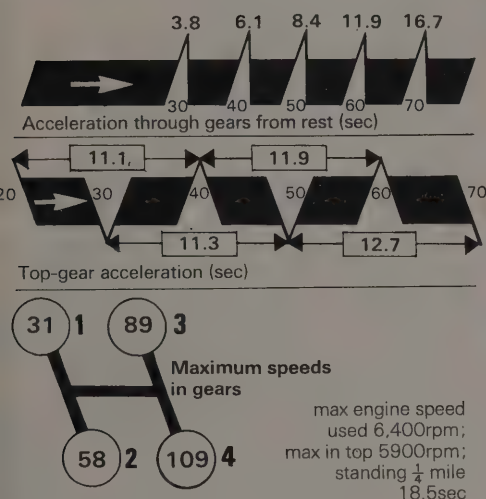
Consumption at steady speeds

30mph	37 $\frac{1}{2}$ mpg
56mph	32 $\frac{1}{2}$ mpg
70mph	26 $\frac{1}{2}$ mpg
max mph	14mpg

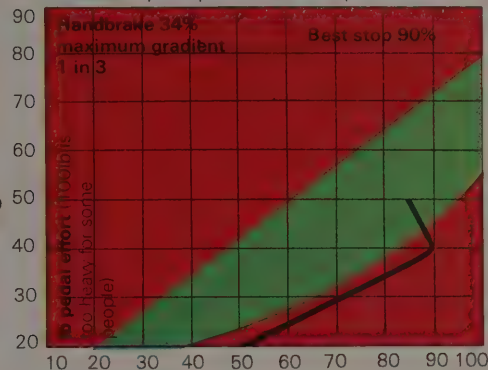
SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seat: secure mounts?	Yes	interior: well padded?	No
head restraint?	O	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	No	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

PERFORMANCE



BRAKES—pedal pressures and responses



% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)

Fade test pedal pressure needed for 75% stop (ideal car would show no variation)

33lb at start **22lb** in constant use **37lb** in severe use
Watersplash 40lb at first, **2** stops to recover

FUEL 4-star/97 octane min
overall consumption 24 $\frac{1}{2}$ mpg
effective tank range 345 miles/14gal

Normal range of consumption

short journey, suburban	19 $\frac{1}{2}$ mpg
hard driving, heavy traffic	21 $\frac{1}{2}$ mpg
mixed roads—brisk 50mph cruising	24 $\frac{1}{2}$ mpg
motorway—70mph cruising	26 $\frac{1}{2}$ mpg
quiet rural—40mph cruising	29 $\frac{1}{2}$ mpg

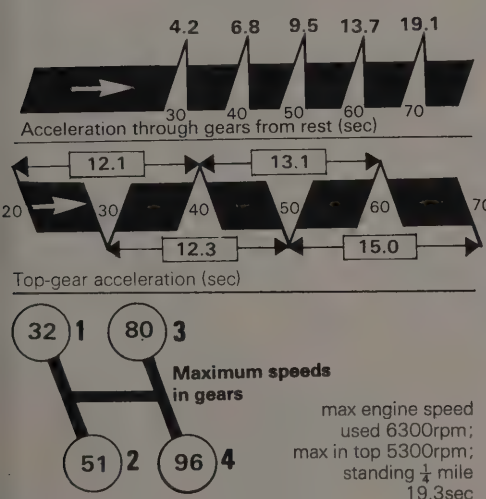
Consumption at steady speeds

30mph	44mpg
56mph	32 $\frac{1}{2}$ mpg
70mph	26 $\frac{1}{2}$ mpg
100mph	15mpg

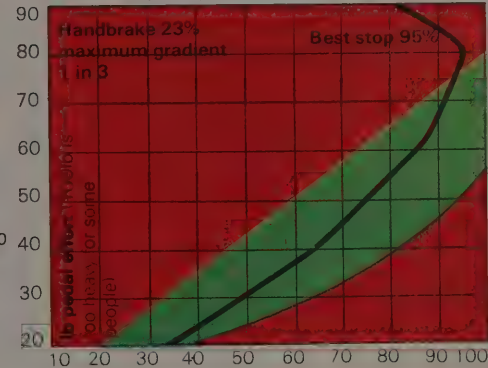
SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	Yes	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

PERFORMANCE



BRAKES—pedal pressures and responses



% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)

Fade test pedal pressure needed for 75% stop (ideal car would show no variation)

50lb at start **70lb** in constant use **70lb** in severe use
Watersplash 80lb at first, **5** stops to recover

FUEL 2-star/88 octane min
overall consumption 25mpg
effective tank range 300miles/12gal

Normal range of consumption

short journey, suburban	20mpg
hard driving, heavy traffic	20 $\frac{1}{2}$ mpg
motorway—70mph cruising	24 $\frac{1}{2}$ mpg
mixed roads—brisk, 50mph cruising	25mpg
quiet rural—40mph cruising	29 $\frac{1}{2}$ mpg

Consumption at steady speeds

30mph	40 $\frac{1}{2}$ mpg
56mph	31mpg
70mph	24 $\frac{1}{2}$ mpg
max mph	13 $\frac{1}{2}$ mpg

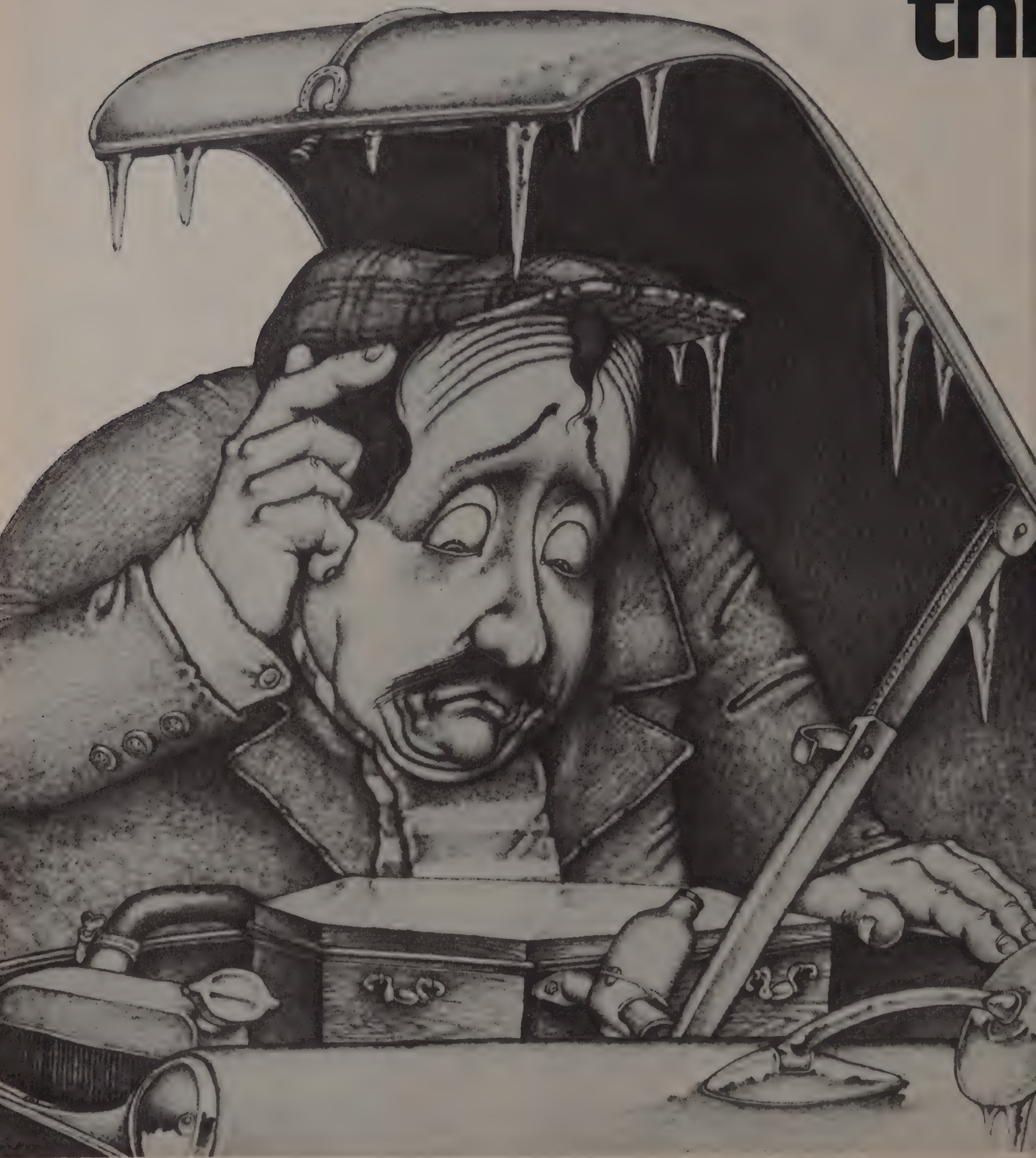
SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	Yes
head restraint?	Yes	w/screen: laminated?	No
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	No
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	Yes

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
7054	2144	22 $\frac{3}{4}$	110	11.7	4.4 (k/d)	96/55	15' 4 $\frac{1}{2}$ "	43	42 $\frac{1}{2}$	4 $\frac{1}{2}$ /35 $\frac{1}{2}$
4967	1985	29	107	12.7	13.5	97/45	15' 1"	39 $\frac{1}{2}$	40	4 $\frac{1}{2}$ /35 $\frac{1}{2}$
4575	1985	30	101	12.7	10.2	92/40	14' 6"	39 $\frac{1}{2}$	40 $\frac{1}{2}$	4 $\frac{1}{2}$ /34 $\frac{1}{2}$
7961	2664	23 $\frac{1}{4}$	112	11.6	8.9	92/45	15' 5 $\frac{1}{2}$ "	39 $\frac{1}{2}$	43	3 $\frac{1}{2}$ /35
6055	2293	21	92	15.8	7.7 (k/d)	100/35	15' 7"	41	41	3 $\frac{1}{2}$ /35

k/d—kickdown

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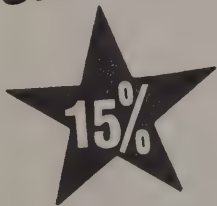


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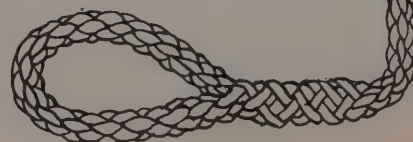
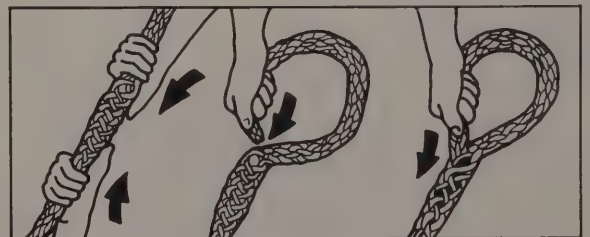
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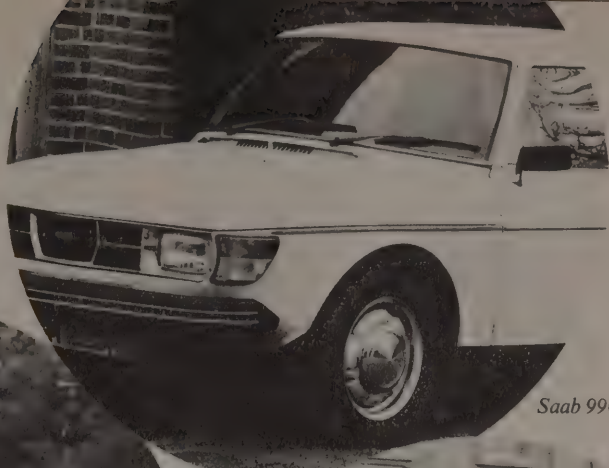
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SECONDHAND Review



Datsun
Laurel Six



Saab 99GL



Audi 100GL



Aston Martin DB6



MGB GT

£3,000

Cheap dreams, expensive nightmares?

IN THE new-car market these days, £3000 will buy bread with only a thin scraping of butter—not to mention jam. This once-princely sum now confines buyers of mint motors to the mundane world of staid 1300cc saloons. But, on the secondhand scene, such money can realise the wildest and most cherished of ambitions—as five readers discovered when *DRIVE* turned them loose with a mythical £3000.

Ford Cortina owner Barry Smith let it go to his head in a big way, becoming James Bond for a day with a coveted Aston Martin DB6 that, apart from showing its age, was also showing a price-tag of £4160. It was way over budget, but... well, we couldn't refuse him.

Frank Hall was confident that he'd found better value with an Audi 100GL at £3250, even though (or perhaps *because*) it was such a recent trade-in that the garage hadn't yet worked on it.

Robin Maltby is an aircraft engineer and surely has more mechanical knowledge than most. At £3150, the 1976 Saab he discovered looked like a bargain, and Robin chose it without even a test drive.

Gerry Matonti would have loved a rag-

top MGB, but eventually settled for an MGB GT. 'Pay cash and I'll throw in a sunshine roof,' was the dealer's offer that hooked him.

Housewife Carol Mason gambled on the reliability of a big Datsun Laurel with the lowest mileage of this group. In fact, it's the model that was superseded by the Laurel Six tested on page 19, and, as *DRIVE* suspected, there can be one big long-term problem...

MGB GT

'When the sun shines, I start thinking about open-top cars,' says Gerry Matonti, 26, a district manager for a Glasgow television rental company. 'I had hoped to find an MGB soft-top for £3000, but no BL dealer in the area could oblige. In the end, I settled for a 1976 MGB GT costing £2895. The dealer offered to knock £100 off the price if I had no trade-in, and added that I could spend the saving on a sun-roof. It was a lovely car to drive—far removed from my Vauxhall Chevette estate company car.'

Gerry drives about 25,000 miles a year and admits that he doesn't enjoy driving as

much as he used to: 'The MG could well have rekindled my enthusiasm. This one was not desperately fast, but the design is roomy enough for a young couple, and, with the rear seat folded, a carrycot.'

Gerry's second choice was another sports car, but of a more novel design—a mid-engined Fiat X1/9. 'I really fell for an R-registered model at £3225, complete with a rigid roof that you could take off. It was a smashing car to drive, much lighter than the MG, responsive and nippy. It would be a real bird-puller, but, sadly, it's too small for an old married man.'

'When it comes to the crunch, though, I'd rather buy British. I'd be afraid that my local dealer wouldn't be able to cope.'

Second opinion

Gerry's 'Better the devil you know...' policy didn't quite pay off, for he'd have found that knowing this MG would have been an expensive business. Although, at 27,000 recorded miles, it was one of the least-used cars of the bunch, the AA's Erskine-based engineer still produced a list of 14 'essential repairs'.

Starting at the minor end of the scale,

there were stone chips and surface rust, a torn carpet, insecure door hinges and a broken door lock. An expert ear diagnosed excessive valve noise from under the bonnet, and anybody's ear could have detected that the horn was illegal: it didn't work. The screenwash's inaction was similarly outside the law.

The tyres were a motley collection with the one virtue that they were all of the same make and size. Only one had more than 6mm of tread, the spare was bald and punctured, and the offside-front tyre was unevenly worn. It all suggested the need for a steering-geometry check and the renewal of worn wheel bearings.

A nearside damper was leaking fluid, a gearbox check revealed a more worrying oil leak at the overdrive's rear seal—during the road test, the MG would occasionally slip out of overdrive when accelerated hard—and the exhaust rattled continuously.

Even at £2795 for cash, the MGB GT was hardly a bargain. By the time these faults had been corrected, it would have cost Gerry a lot more than £3000.

'I'm alarmed by the number of them,' says Gerry, 'but I'd regard only some of them as serious. I'm sure the garage would put them right before selling.'

ASTON MARTIN DB6 AUTO

Guildford-based sales manager Barry Smith, 45, thinks his Ford Cortina company car is a good workhorse, but he wouldn't say no to something more exciting. 'I love driving, and I could live with any of the cars I chose. In the end, though, I fell for the Aston Martin DB6 at £4160, as it must surely go up in value.

'For a 1970 model, it had a low mileage of 56,000. The engine was beautifully

clean and the real-leather upholstery unmarked. I did wonder if it had been involved in an accident, though, as the back bumper was obviously new.

'I have a weakness for BMWs, having once owned one, so my second and third choices were a 3litre automatic coupé and a 2litre automatic—both L-registrations at £4295 and £3850 respectively. The first was a grand car with lots of power, but one drawback was that most of the beautiful BMW toolkit was missing. On the other—a 520—I noticed that the tyres were mixed and that two of them were unsafe for high-speed driving.'

Second opinion

Barry was right to suspect crash damage on his dream car, for the AA engineer found repairs to both front wings, the front and rear panels and boot lid. Although the work had been generally well done, too much filler had been used in places. There was still a crease in the nearside door and a small dent on the roof—symptoms of a car that has been rolled.

The engine got a clean bill of health apart from a few oil leaks in its old age, but the alternator needed attention if the Aston ammeter's reading was to be believed.

With a fast but heavy car like an Aston Martin, good tyres are vital, but tread damage on the offside front tyre on this car had actually bared its internal cording. All the other tyres had a high-speed rating, yet the speed code on the damaged tyre had been buffed off... The nearside front tyre had a blister (indicating internal damage) and, at the back, one of the wire wheels was missing a spoke.

One steering-rack gaiter was holed, but, in general, the steering system and suspension were standing up well to the years

of work. The main question-mark was a 'heavy knocking' that the engineer heard from the rear suspension when the DB6 was tested up to 60mph over uneven surfaces—a sign that the suspension and damper mountings needed attention.

Secondhand automatics can be a drain on the wallet, and the DB6's system threatened to be no exception: there seemed to be no kickdown on the throttle in D1 below 40mph, and none at all in D2. Performance and handling: 'acceptable'

The venerable Aston may not have been the sport it once was, but, with new tyres, expert attention to the rear suspension and auto transmission, and some evening classes in panel-beating, Barry could well have given his dream a new lease of life.

AUDI 100GL AUTO

Frank Hall, 43-year-old general manager of a firm of dress manufacturers in Leicester, had no doubts about the 1975 Audi 100GL automatic that he found. 'It's got to be a winner,' he almost shouted...

He owns a Ford Cortina 1600 estate, and his wife has an Austin Maxi 1750, so why was he enthusiastic about this foreigner? 'My brother-in-law runs an Audi,' says Frank, 'and it has never given him a day's trouble. This one had just been part-exchanged by its sole owner for a newer version. The garage had supplied it new and had looked after it ever since. How could I go wrong?'

Didn't Frank consider anything else? 'Yes, I trekked round many garages, but they were pretty rough, with nothing worth a second glance.'

Second opinion

Registered on 1 August 1975—winning it a P registration—the brown Audi had



GREAT ESCAPES Carry on up the Khyber

IN BROAD DAYLIGHT, barely three feet away, an owl perched on the gatepost, blinking benignly. I did a double-take to check that it wasn't a grinning Cheshire cat, for nothing was what it seemed in the Alice-in-Wonderland islands they call the Orkneys.

Without even taking one dram of the local 100-proof whisky, I

had seen salmon 'swimming' in rum, eaten lamb reared only on seaweed, watched a baby seal being bottle-fed, and taken a stroll up the Khyber Pass. That they play soccer here only in summer, and call the island on which the capital Kirkwall stands 'the mainland', seemed almost normal by comparison.

Even so, you don't expect to find a boat with bay windows and a front door—not upside down, that is. But holidaymakers arriving to enjoy a self-catering stay at Finstown find exactly that. They live in remarkable comfort, with an all-electric kitchen, spacious lounge and three roomy bedrooms—all in a 60ft glassfibre-boat mould.

Former Antarctic-research seaman David Reid saw it lying idle in a boatyard and decided that it would fulfil his dream of having a boathouse like the one in *David Copperfield*. The boat now forms part of David's small complex of unusual holiday homes and more conventional chalets.

At Burray, near Scapa Flow, the massive natural harbour that now has more navy ships on its bed

than on its surface, David Reid has transformed a stone cooperage into four modern self-catering flats. In the basement is a store for the bicycles that he rents out.

My favourite is the simple white-washed croft that David recently renovated at Skesquoy, set amid a typically bare, rolling Orcadian landscape of moorland and fields. As well as adding a modern kitchen, he has turned it into a living museum, complete with antiques such as a 100-year-old grandfather clock, an even-older piano and lovely oak furniture, including an ancient rocking chair. The big stone fireplace burns local peat over which hangs a traditional 'crane' for pots.

At night, otters come from the nearby loch to frolic by the croft. Thankfully, most of the local seals stay away. They have a habit of giving birth to pups on doorsteps leaving them to be bottle fed.

The problem on North Ronaldsay used to be the sheep—they almost ate the people out of their meagre living. So the islanders built a wall around the whole island, and the sheep now live on seaweed that gives their meat a

tasty, delicate flavour of the sea.

Yet it is nowhere near as delicious as the rarity that is sent all over the world—even to the Kremlin—by Sutherland 'Sid' Watson from his tiny shop in Kirkwall. His unique smoked salmon is given a good soaking in rum as part of a secret recipe for which he says he has been offered thousands of pounds.

Most visitors to the Orkneys, however, come for the exceptional wildlife, with vast seabird colonies and such rare creatures as the hen-harrier and peregrine falcon. But you won't find anything wild in the Orkneys' own Khyber Pass—that's the official name for a street in the fishing port of Stromness. BILL GLENTON

Regular air services by British Airways and Loganair connect Kirkwall with Inverness and Aberdeen. Loganair also operates an inter-island Orkneys service. A regular car-ferry makes the two-hour crossing between Scrabster on the Scottish mainland, and Stromness, with a less-frequent one from Aberdeen. Cost of a self-catering stay is £60 per high-season week, £30 low.



an above-average 37,584 miles on the clock. Nevertheless, Frank Hall had found himself a good example of a reputable model. The bodywork was good, with only superficial scratches on all the panels, plus some strange spots of white paint. Inside, the condition was described by the AA expert as 'virtually new', and there was the bonus of a sunshine roof.

Underbonnet there was a slight coolant leak round the head gasket and a not-so-slight oil leak near the timing cover. The fuel system with its automatic choke was perfect, and, apart from slight corrosion on the battery mount, the electrics sparkled; there were even two high-intensity rear lamps.

The tyres were rare for a used car—a full set of Michelin XAS radials with plenty of life left in them. While the suspension passed with flying colours, Audi's rust-proofing of this three-year-old took a knock. The engineer noted that the factory-applied sealant was sparse on the front box sections and outer floor areas, where rust was starting to make itself at home.

A road test revealed nothing more than a rattle in the driver's door when the car was ticking over in D. Our fastidious expert listed that as an essential repair, along with the oil leak, but nothing else.

Frank Hall had indeed succeeded in finding the best buy of the bunch; a car's history can be a useful guide to quality in the secondhand car market.

SAAB 99GL SUPER COMBI COUPÉ AUTO

Big-car comfort and the luxury of an automatic gearbox were high on Norfolk aircraft engineer Robin Maltby's list of priorities. Currently the owner of an Austin Maxi, 30-year-old Robin needs the room for his growing family.

'It's always been utility cars for me, but £3000 let me think along grander lines. Wanting an automatic restricted my

choice though: everyone around here seems to drive manuals.'

Robin never even drove his final choice, a three-year-old Saab Combi coupé. 'It was in the workshop having its timing checked—at least, that's what they told me,' he says. 'It looked to be so clean that I wasn't worried.'

'I did consider two Volvo automatics, as they are supposed to be highly rated, but they don't impress me any more.'

Second opinion

Registered in October 1976, Robin's Saab had more than 37,000 miles on the clock. The AA engineer valued the car at £250 more than the asking price of £3150, so, on paper, it looked like a good buy.

In the flesh, however, the Saab showed signs of a shunt, for the driver's door was badly dented and the passenger's needed a hard slam to shut. The boot lid was dented, too, and its severe scratches were already providing a home for rust. These points aside, the exterior was in good condition. The interior was fine as well, apart from a missing cushion on the driver's head restraint.

Despite the fact that, when Robin saw it, the Saab was being serviced, there were still some obvious engine faults. The coolant level was low and, under pressure, water leaked from the hose connection to the header tank. There was also an oil leak from the engine from an untraceable source. The battery was flatter than a week-old pancake, but it perked up after the test drive.

A check of the suspension revealed that the dampers had all been renewed recently. Underbody condition was good, with only nominal surface rusting.

Once the car was jump-started, the road test gave satisfactory results. Whether it was worth buying, however, would depend on the garage's willingness to give the Saab a thorough service and some attention to its many dents; but Robin's intention 'not to be fobbed off with something that just looks good' did lead him to a basically sound saloon.

DATSUN LAUREL SIX

Carol Mason, 24, a housewife from Lezant, Cornwall, dismissed the gleaming Triumph TR7 sports car that initially took her fancy, saying: 'I reckon I'd soon get fed up with it, and want a Porsche or something. And, to be practical, we do spend a lot of time travelling as a family to visit our relatives in the Midlands.' So the 'sensible' choice for the Mason family was a P-registered Datsun Laurel, the earlier model of the Laurel Six tested elsewhere in this issue. It was priced at £2700, with only 22,000 recorded miles.

Says Carol: 'I have heard that Japanese cars are reliable, and this one was in excellent condition. It was very roomy inside, with easy-to-operate controls, and it would have been a delight for long-distance travel. My only grumbles were that there were no child safety locks, and the toolkit seemed rather sparse: just one

spanner and a jack—not a lot of use for a breakdown.' In fact, a new Laurel's kit is unusually good, but things tend to disappear at trading-in time.

Second opinion

There were a few items requiring attention, but the overall condition of the 1976 Datsun was generally good, with years of useful service left. As anticipated in DRIVE's test of the new Laurel, the immediate problem was rust and, if the blisters and nasty patches that were showing were not attended to, the body would deteriorate quickly.

Inside, everything was in such good condition that a loose door-pull and missing air-vent knob were the only faults.

Nothing was amiss with the engine that a thorough service wouldn't rectify: water leaking from the thermostat housing joint, and slight oil leaks near the base of the distributor and the rear of the sump. The fuel system, electrics and steering checks were all-clear, and the car was fitted with four good-quality Dunlop radial-ply tyres. Curiously, the spare was worn unevenly...

Suspension checks, underbody rusting and on-the-road performance were all satisfactory and, apart from slight corrosion, the exhaust was sound. So, while Carol's faith in Japanese reliability was well-placed as far as the underbonnet works were concerned, she would have learnt the expensive way its panelwork doesn't yet reach the same standards. ●

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CAR TESTS

An attraction of the Common Market is that one doesn't have to be common: 2litre engines, for example, come in many European shapes, such as Germany's Opel Rekord, France's Renault 20TL or Italy's Fiat 132—different without being exotic. And it's a commodity that may appeal to jaded fleet manager and limited-account buyer alike

Opel Rekord Berlina

Price £4631 On the road £4736

LONG PLAYER, RATHER THAN A SMASH HIT

Opel isn't a name that springs readily to mind when the British motorist peruses the new-car market. In fact, the average UK buyer would be hard put to recognise a Rekord if it ran over him. But, in Opel's German homeland, things are different: in the last year, the Rekord has displaced Volkswagens from the top-selling slot on occasions.

There are, of course, good family reasons for this: General Motors, overlord of Opel, is more energetic in promoting the sales of its British badge—Vauxhall—in this country. But today's Opels tend to be tomorrow's Vauxhalls, and the 'new' Carlton, successor to Vauxhall's VX range, bears more than a passing resemblance to the Opel Rekord.

DRIVE sampled the German original in 2litre Berlina form to find out what we've been missing.

How it goes

There is little under the lid of the Berlina to make car buffs clamour for a sight of its mechanicals—a 1997cc 'lump' delivering power in orthodox Opel fashion to the rear wheels. An automatic choke ensures prompt early-morning starts, albeit with jerks and surges for the first cold mile, and this, combined with a tendency for the choke to cut back in after fairly brief parking spells, takes a toll on stop-start mpg figures.

Although German cars have traditionally tended to be undergeared, Opel has always been the exception to the rule, and this Rekord is even higher geared than its predecessor. This contributes to its improved fuel



economy, but, although 28mpg overall is a gain of 2mpg on the last Rekord tested, and identical to Vauxhall's slower VX1800, it doesn't raise eyebrows among rivals, and stays merely respectable in DRIVE's trio. The 12gal tank is an easy filler.

Where the high gearing really makes itself felt is—unhappily—in the cut-and-thrust of town traffic. The power is there, but urban drivers really have to stir the not-too-deft box to ferret it out—even third-gear acceleration doesn't come to life until 40mph, and top-gear slogging power is poor. Another low-speed problem is the organ-type accelerator pedal that seems set up for lorry drivers: and steering on street corners can be a handful.

It takes a clear highway and a chance to stretch its legs to see the best side of this Rekord. Then, it bowls along beautifully, with no noisy boom periods to dodge. Wind and tyre noise, too, is well suppressed, and our test car had no rattles. It all adds up to a pleasant high-speed cruiser.

Where the real revolution has taken place is in the suspension, with the German GM division going to much trouble to change over the front end to MacPherson struts—the first time on any GM car. The result is a ride that is

undoubtedly better, though frankly we had expected more, not least in view of what the maker has achieved with less sweat on its smaller Ascona/Cavalier series. True, wavy roads are handled with poise, but sharper bumps and ridges bring it down to earth.

The Rekord is, however, a good-handling car, an alert saloon that takes fast bends with just a hint of tail-swing—'saucy,' said DRIVE's tester, tucking it safely back into line simply by easing off the throttle. Pirelli P3 radial-ply tyres grip the road well, but not exceptionally so.

Steering is a wheel-spinning affair, with a multi-jointed, low-g geared recirculating-ball mechanism. It feels manageable on brisk corners, but rather vague in the straight-ahead position, and stability on windy motorways is less impressive than some rivals'. We wonder, too, what the passage of time will do to its precision, with so many ball-joints.

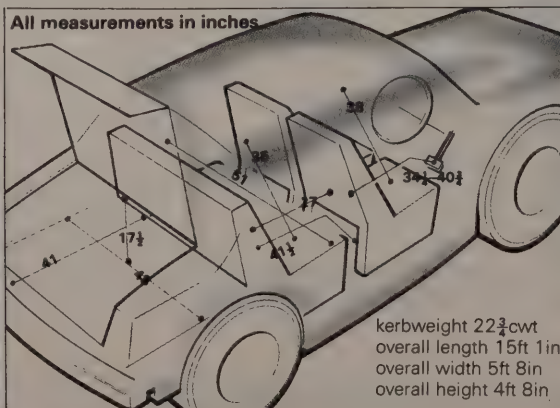
Brakes are servo-assisted to perfection, and short pedal-travel brings a 100%-efficient crash-stop for an ideal pressure of 60lb. The system's only faults are an unwelcome tendency to fade under duress, and a slowness to recover from a soaking.

Inside story

Most of DRIVE's test team climbed out of the Opel with an overall impression of a very pleasing car. Despite the presence of a lot of plastic, the Rekord somehow manages to look classy.

Instrumentation viewed through the well-padded steering wheel is clear but not very comprehensive—no tachometer or supplementary gauges beyond fuel and temperature, no rheostat for instrument lighting. The only 'luxuries' are a prominent quartz clock and a telltale to warn of the need for brake or clutch adjustment—a sound idea, the latter, yet there is no such warning for low fuel or rear-window heater.

There are a lot of switch blanks on the fascia panel; a single stalk sprouting from the column com-



**DRIVE
EXTRA**



Signed, sealed and all argument settled

THE CAR fire extinguisher was very good, generally. It quelled a tray of blazing petrol immediately . . . provided its aerosol nozzle didn't fall off first. Unfortunately, it often did when the protective cap was ripped off. And, as the nozzle controlled the plunger, this slight detail rendered the extinguisher useless. Murphy's Law being what it is, this vital component was almost sure to roll under a burning car. And even if it didn't, time would be lost. So the manufacturer didn't get the AA's Seal of Approval. . .

Six years after it was first awarded, the Seal of Approval is widely coveted by makers and importers of car parts, accessories and associated equipment: not only is it their guarantee of more sales, it is the buyer's guarantee of quality.

The whole idea started with

Les Sims, manager of the AA's technical services department. In 1972, looking for ways to extend the Association's role as watchdog over motorists' consumer interests, he worked out a scheme whereby manufacturers and importers would foot the bill for having their products tested by the AA's laboratories and workshops. Most welcomed the idea: for them, AA approval of a motor-ing gadget or part would be worthwhile at almost any price. But they soon realised that it wasn't an honour simply to be bought or even earned easily. . .

In fact, of 320 applications, covering 600 different lines, only 133 have been approved to date, and in 19 cases makers have had to modify their products to meet the AA's tough requirements. What's more, 12 of the original approvals have since been

withdrawn because subsequent testing has revealed that quality hasn't been maintained.

How, exactly, does a manufacturer win a Seal of Approval?

Any maker or importer can apply to the AA's engineering research department at Basingstoke, Hampshire, to have a product tested. A test fee is agreed—it may be as little as £5 or as high as £3000 if a lot of work is involved—and several test samples are supplied. If the product is rejected, the fee is not refunded but the applicant receives a detailed report to help, if possible, to rectify faults. He can also get advice from AA testers.

If the product passes the test, a certificate fee of £120 is payable for the first year and an annual renewal fee of £60 thereafter. And each year, the AA buys samples of approved

products off the shelf to check on standards.

How do the testers judge a product?

'Will this thing do what its makers say it'll do?'—that's the first question they ask. But they are concerned not only with function but with safety and legal requirements, too. And will it last?

Introducing the scheme in April 1972, Mr O F Lambert, now director general of the AA, spoke of an 'urgent demand' from the British motoring public for 'increased and authoritative technical advice'. This is exactly what the AA's Seal scheme provides.

TESTING, TESTING

If all that anyone knows about a towrope is that it shouldn't break, he should take Doug Houston with him when he goes shopping.

Head of AA engineering

SEAL OF APPROVAL

research, Houston is responsible for the proving of all products submitted for Seal of Approval. He'll point out, for example, that a towrope, as well as having tensile strength, should have a minimum standard of elasticity—though probably he wouldn't call it that: his vocabulary is usually more technical, but less intelligible.

He knows, too, that it should resist wear from rubbing on the road when slack, and from chafing at the anchorage points when taut; that it should be long enough for safety but not so long as to represent any sort of danger.

The ropes that Houston can be given enough of don't come cheap, but they are certainly serviceable.

To check whether a towrope is worthy of the AA's Seal, Houston will arrange to have his engineers torture and test it in ways that would stretch your patience.

The abrasion test is routine—the rope is mechanically rubbed over a harsh test surface under a set pressure for a specified number of times. (There's also an AA device that goes on rubbing a 'test posterior' over seat covers until it is switched off—usually after 250,000 cycles.)

Next, one end of the rope will be fixed to a joist, with 176lb of concrete on the other end, and dropped from a considerable height: this is the dropping-weight equivalent of two 1ton cars tugging at each other with a speed difference of 4mph.

Pictures taken in the dark prove elasticity. A light is fixed above the concrete and the whole 'pendant' is swung before a camera with its shutter open; this produces a horizontal line across the photographic negative that marks the rope's length when not under exceptional stress. The weight is then winched up and dropped . . . and the light on the negative shows how far the rope has stretched, and how much of that extra length retracts on the rebound.

Engineers also explore the towrope's static strength, the strength and ease of its attaching devices, liability to damage vehicles, and so on. And maybe, finally, it will earn its Seal of Approval.

Patience and thoroughness are essential qualities for testers. When a zinc-based paint, in aerosol and brush-on forms, arrives for assessment, eight competing products are tested alongside it. Steel plates,

seamed at one edge (seams are vulnerable to corrosion)—one set pre-rusted, the other free from rust—are treated and painted according to the makers' instructions. An electronic gauge, measuring in thousandths of a millimetre, checks that all coats of paint are of the same thickness.

All plates are then scratched equally through to bare metal, given 1000 hours' exposure to a dense fog of salt spray, and checked for rust and residual paint. Other tests check

the suppliers' claims . . . and, again, maybe the product will get its Seal of Approval.

GIVE US THE TOOLS...

To check and counter-check that a product really does what it's supposed to do, does it well, and goes on doing it for a reasonable time, the AA has installed some very interesting and exacting equipment in its materials-testing laboratory (as well as a rolling road for testing fuel consumption in controlled conditions,

exhaust emission, brakes, etc).

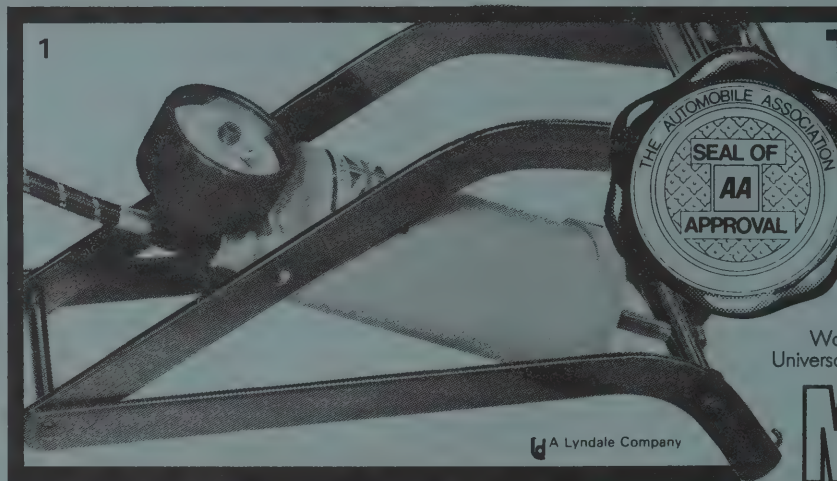
A metallurgical microscope and a stereo-microscope with camera attachment allow engineers to study metals, including their grain structure.

Garage-style electronic engine-diagnostic equipment makes fault-finding in power units easy.

Minute flaws in metal can be detected via a magnetic apparatus, and another gadget measures hardness.

A transparent tank allows salt-spray corrosion to be

1



The A.A.SO V Th with A.A.S

A foot pump worthy of and surprisingly easy each pump for inflating inflatable boats, footballs

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2



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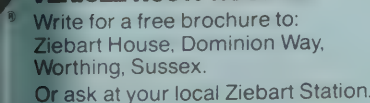
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If you want to know more about our "all-round protection policy," send for the Ziebart c

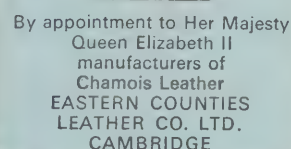
A specially-equipped road-test team is on hand for other,

Continued on page v

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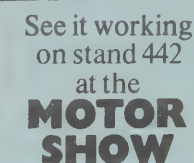
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7



Gunson's FOGSTOP
the rear light intensifier—easy to fit to
any 12 volt vehicle
Brightens both stop and tail lights.

[illegible]

in-service checks, and there's even a qualified doctor on call for comfort assessment...

Nothing is left to guesswork when products have to be ripped apart, dropped, and generally made to suffer more maltreatment than any boy-racer or little old lady could give them.

Time isn't spared, either. Some products—exhaust sys-

tems among them—can take up to three years to check.

IT'S FUNNY, BUT...

Sometimes the AA's testers get a wry smile from the job. Doug Houston still puzzles over the foot pump that wouldn't break. It was plastic, and was regarded with more-than-usual suspicion. Among other tests, it was given the

equivalent of five years' heavy-footed wear... and still the plastic shell refused to break.

The pump itself was failed, largely because its spring—almost its only metal part—was weakened and bent; but the one component thought most likely to crack up, its 'flimsy' plastic body, did not.

These are the kinds of products

that arrive at the Seal of Approval test centre...

Anti-corrosion products (car-rustproofing and zinc plate), anti-frost items (coolant protectors), anti-theft devices, battery accessories (booster cables, chargers, etc), body-work units (fillers, mirrors, sunroofs), braking systems (bleeding devices, fluids), breakdown equipment (tow-ropes, emergency windscreens, etc).

Car-care products (vacuum cleaners, chamois leathers, sponges), comfort aids (seats), cooling systems (radiators, hose clips, pumps), electrical items (foglamps, horns, car clocks, etc).

Fire extinguishers, fuel systems (reserve tanks, tuning equipment), headrests (not restraints), ignition systems (damp-proofing sprays and electronic systems), in-car entertainment, roof racks, safety items (child harnesses, dog guards, seatbelts, safety seats), shock absorbers, tools, towropes, trailers, tuning aids, windscreen-wiper blades, fluids, pumps.

One last word of advice: always check that the product you wish to buy has been given the AA Seal of Approval. And then go out and buy with confidence.

GEORGE YOUNG

PROTECTOL

the only CLEAN rustproofing system with AA approval

At each of these rustproofing stations you will see the Protectol sign, alongside another showing the AA Seal of Approval.

Both tell you that you have found top-quality rustproofing—and guarantees to guarantee your peace of mind.

Protect **your** car from the ravages of rust with Protectol. Clean, second-generation rustproofing, and the No. 1 All-British system.

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8



Transtrip Inspection Light

Any two-minute job becomes a major problem in bad light: a small adjustment under the bonnet, finding things in the boot or reading a map become near-impossible.

Transtrip's Inspection Light is the answer: a bright 6 watt fluorescent tube in a near-unbreakable acrylic cover with hard rubber fittings. Clip it to your battery and its ten foot lead reaches the darkest corner: plug into the cigar socket and eat, drink or read without fumbling (the light hangs up).

Price, complete with lead and crocodile clips: £10.25 (including VAT). Cigar socket adaptor: £1.30 (including VAT). FROM All leading motor and caravan accessory dealers or

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9



Seal of Approval

Motor Top Ten Accessory

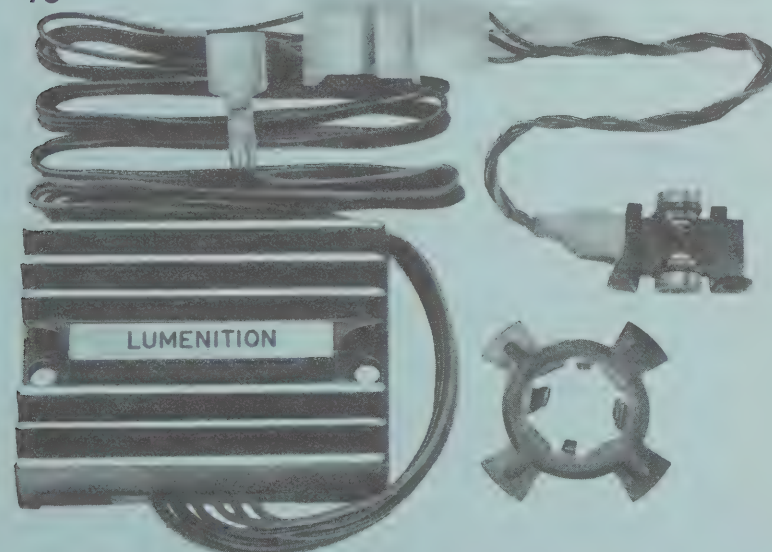
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an infra-red ray directed at a photo transistor to give pin-point ignition timing.

It improves performance. No points means no points bounce or wear.

It makes starting easier. Because it gives accurate timing at low revs with no variation in spark energy.

It cuts servicing costs. There's nothing to maintain or replace.

It's guaranteed for 3 years. (In fact, it'll last for your car's lifetime because there are no moving parts to wear out.)

And it can be bought for less than £40 from a nationwide network of stockists.

Really, it just had to win the AA's Seal of Approval.

Contact us for further information plus the address of your nearest stockist.

Lumenition



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Not surprisingly,
it has the
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Here's why Lumenition Opto-electronic Ignition is so special:

It saves petrol. Because at its heart is



Protectol Gold Seal and Standard
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Approved by the AA and 50,000
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Foreign investments

bines 2-speed-plus-intermittent wash/wipe with a six-wipes-per-wash setting, headlamp dip and flash and horn—undoubtedly ingenious, but is its complexity a good idea? Perhaps familiarity breeds reassurance. The exterior door mirror can be set from inside—a nice extra—but the horn would win approval only from the Noise Abatement Society.

Velour-covered seats feel as good as they look, giving firm, therapeutic support all round, and testers of every shape and size managed to find a comfortable driving position, despite a lack of height adjustment for either seat or steering wheel.

Rear passengers had complaints about being unable to see past the immovable front-seat headrests; but even they had to admit that the rear was roomy, the centre armrest was cosy and the intelligent seat angles comfortable.

The heater responds instantly to chosen settings, but the flow falters at speeds below 40mph and needs the assistance of the rheostat-controlled fan; and no amount of assistance will push warmth through to rear passengers' feet. The fresh-air ventilators look good, but is their limited flow much use on a hot day? In the absence of a real summer, we can only suspect not. Outlets at each end of the fascia do however deliver warmth with the heater on, acting as effective side-window demisters.

Oddments space is good, with handy front-door bins and a carpeted rear window shelf backing up the lockable glovebox. The boot is roomy, but with a bumpy floor and a prominent sill.

The Rekord rates well in the interior safety stakes: inertia-reel seatbelts are both easy to use and unobtrusive, and padding is good all round—with the notable exception of the steeply angled windscreen's top rail. Outside, however, DRIVE's security team were left shaking their heads at the too-prominent fuel tank and a rigid filler pipe.

Living together

Rarer imports tend to have a reputation for rust-resistance, but, in truth, our engineers were less impressed by the Opel's protection than that of its Vauxhall cousins.

The simple wax spray that wards off the weather from the underside of the Rekord is worth little more than one winter, and the patchy pvc under the wheelarches is more to impress than to protect. Both front and rear wheelarches will harbour mud, and only a coat of paint stands between the sills and the rustbug.

Paint finish was good, but already there was a blistering

and lifting around the door flanges on our low-mileage test car. In true GM style, the paint job doesn't extend under the bonnet, and the Rekord's engine room looks like a tramp steamer's.

A few service items—oil filter, fanbelt adjustment, for example—are buried in the bowels of the mechanicals, but most are easily accessible, and DIY maintenance men will bless labour-saving devices such as the hydraulic tappets, and finger-screws for headlamp-beam adjustment. They will have little reason to bless the handbook, though—more wordy than worthy. Spares are pricier than Vauxhall's, and dealers fewer.

Valeting is simplified by the hardwearing velour seats that yield up their dirt, although difficult numbers such as dog hairs may drive owners to distraction, and the fixed carpets demand a vacuum cleaner.

Depreciation on previous Rekords has been heavier than average, but things can only improve when the Vauxhall version becomes commonplace. Insurance is Group 6.

Perhaps the design success of the Cavalier led us to expect too much of the new Rekord. Viewed in isolation, however, it is successful as a roomy, quiet, large long-distance saloon, fairly well appointed and put together, but with a few mean omissions. That radical redesign of the front suspension does, nonetheless, seem an awful lot of bother for a dubious return, and the high-g geared power unit demands too much of the driver.

Is it really all worth the effort?

Everyman Report

As far as DRIVE's Everyman testers were concerned, the Opel was running in the wrong race...

'It was too heavy for me,' said Basingstoke housewife Joan Phillips, 25. 'The accelerator was stiff, and I needed power steering. I couldn't reach the light switch without leaning right forward, and the fascia looks very basic.'

'I didn't like all that plastic,' added office manager Denise Bewsy, 21. 'I thought the accelerator was stiff, too, and I didn't like the gears. It's the least comfortable of the three cars.'

Company director David Everest, 30, tried hard to like the Opel because he thought it looked so handsome. 'But it seemed to have less performance than the Renault. You have to work hard to drive quickly.'

Insurance broker Roy Kidman, 55, thought the steering wheel was too close for comfort: 'I'd find that tiring on a run. Unlike David, though, I liked the performance.'

Renault 20TS

Price £5153 On the road £5258



DISCREET CHARM OF THE MIDDLE-CLASS

Two's company, but three's more fraternal in France, where Renault, Peugeot and Volvo are co-operating to produce brand-new engine designs.

Renault got a new 2664cc V6 to power its 30 model into the prestige market, but there was still a gap between that and the 1647cc in the 20TL—embarrassing, when the French calculated that one in five Europeans is a potential 2litre buyer. So the co-op came to Renault's rescue last November with another instalment: a 2litre, four-cylinder all-alloy engine that was promptly dropped into a hatchback body with most of the 30's luxurious gadgets built-in as standard.

The French firm had to stamp its not-so-*petit* foot to get the new power-plant first, thereby risking possible teething troubles. Did Renault rush in where Peugeot and Volvo feared to tread?

How it goes

Without doubt, the new engine is quieter than that in the willing but vociferous 20TL, and thumps out 22% more power via the front wheels, though we retain reservations about its refinement.

Prompt cold starts are ensured

by the automatic choke, and warm-up is hiccup-free. Although quicker than the 20TL, the twin-choke 20TS ranks in petrol economy with abstemious rivals such as the Audi 100, and just betters the Fiat in this group.

A gentle right foot on a rural run achieved a remarkable 34½ mpg, while hurrying along the same routes dropped this figure to an acceptable 29½ mpg—which proved to be DRIVE's overall consumption figure. A touring range of 365 miles between fill-ups makes the 20TS a holiday winner, but 4-star has to be fed in slowly to avoid blow-backs. Oil consumption was a pint per 1000 miles.

The 20TS may be more powerful than the TL but it carries a 2cwt handicap that's not alleviated by higher gearing. While its top-gear acceleration is the best of this particular bunch, the five-speed Fiat's fourth gear will leave the Renault eating dust.

Acceleration from standstill is an unequal race in which the 20TS comes last with a 0–60mph time of 12.8sec, disappointing for an all-new engine. Given time, however, it will go on to equal the maximum speeds of the others.

All this is achieved at the

expense of your ears, for by 70mph the engine is raucous enough to make most drivers obey the motorway limit, and the Michelin tyres start squealing through corners long before they really suffer. An unpleasant drone between 50–60mph necessitates continual speed adjustments—irritating in a car of this class.

Judging by front-wheel-drive standards, the gear change is competent rather than good. While its action is much sweeter than the Renault 30's, and the light clutch flatters the weak-kneed, some testers complained of its clunky action, and not everyone liked its spring loading.

The Frenchman's *forté* is an unruffled ride for all its passengers. Hefty stabiliser bars have been added to the long-travel suspension to cut traditional Renault roll, and they work well—to a point. While gentle drivers will have no doubts that the Renault's ride is for them, wavy surfaces on the high-speed test track set up unpleasant heaving.

As usual, the comfortable ride is traded-off against safe but less-than-inspiring handling. Most drivers will be convinced that the car always goes where it's pointed, but DRIVE's testers found that cornering on full power tempts the 20TS to go straight ahead, calling for an extra armful of lock. Lift off the throttle, and the 20TS quickly toes the cornering line without the tail carrying out its threat to step sideways.

Power steering approaches the Fiat's system for sensible weighting, but it communicates little real information about the front wheels' behaviour.

It is reassuring to see the fascia's warning lamp for brake-line failure, and there's an apportioning valve to prevent rear-wheel lock-up. The brakes' initial reaction to a prod is on the sharp side, progressing to a 98% stop at a rather-too-light pedal pressure of 50lb. Fade could still be a problem in such severe conditions.

Inside story

The test car's mock-suede fascia

Everyman Report

Three first choices and a last showed that the 20TS may not please everyone, but it can please a majority...

Joan Phillips thought the Renault smooth and very, very comfortable. 'Performance is excellent, and I liked the power steering. The car looks very attractive.'

Denise Bewsy agreed: 'This is the one I like the most. I felt happy in it immediately, and it was so easy to drive. I liked the instrumentation, and being able to turn the seats into a double bed.'

David Everest was scathing: 'The steering was vague and ponderous, with too much servo-assistance. And you wouldn't want to drive it fast because of all that noise.'

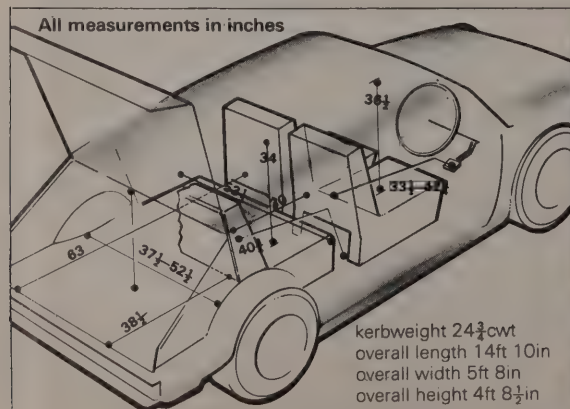
Roy Kidman thought the ride and roadholding were good, even if the car was a little noisy. 'It immediately suited me. I felt totally at home, and it was easy to drive.'

displayed a comprehensive array of instruments. While the four dials are glare-free and easy to read, DRIVE testers found the speedometer grossly inaccurate, and the tachometer (red-lined at 6000rpm) was little better. These are flanked by fuel and temperature gauges and a voltmeter on the left, an accurate quartz clock on the right—all illuminated and rheostat-controlled. Nine warning lights for such eventualities as brake-pad wear and oil pressure loss are easily seen.

Indicators are operated by a stalk on the right of the steering column, behind which lurks another for the lights and horn. A lefthand stalk controls the 2-speed wipers and electric screenwash, but it lacks an intermittent setting. Happily, good aerodynamics keep this hatchback's rear screen clear, but the front screen's wipers, though converted to righthand drive, leave vital areas of glass unswept.

The length of the equipment list approaches that of the 30TS, including such luxury touches as electric front windows and doors that can be locked from the inside at the push of a single button (although AA safety experts normally don't recommend locking yourself in when driving, the 20TS doors are designed to unlock themselves in a crash); but the electro-magnetic switchgear doesn't extend to the hatch: that calls for a separate operation. The car will endear itself to caravanners and load-carriers with its fascia control knob for trimming headlamp levels.

The excellent front seats quickly impress, with their high, commanding position and generally-good lumbar support. Pedal lay-



out, too, is surprisingly good for a foreigner.

Front-wheel drive means that the 20TS doesn't give a fifth passenger the hump, and recent revisions to the seating have enhanced both stretching space and support.

Renault backs up spaciousness with versatility. In normal use, the boot is conventionally shielded, but the rear parcels shelf can be removed and the rear-seat backrest hinged upwards on its top mountings to provide more than double the cargo space. Unfortunately, the backrest's suspension in mid-air restricts the useful load height inside the car, so Renault's boast that the entire back seat can be removed to provide three times the normal cargo area is more of a necessity than an option.

Heating and ventilation will cope well with anything short of a real freeze. Warm air quickly fills the front footwells, and rear-

seat passengers are not left in the cold. The fan is coupled to a rheostat for infinitely-variable speeds, and four fresh-air vents push enough cool air through the car to enable the side windows to remain closed. Demisting is quick and efficient, with a separate system to clear front side windows.

Renault has done a good job on the safety front, protecting passengers by progressively-collapsing sharp and blunt ends. We can't say, however, that the interior is well padded—it's skimmed around the windscreen and roof—and head restraints should not be an optional extra at this price. The steering column is designed to resist rearwards movement, yet it won't collapse if the driver is hurled into it: the inertia-reel seatbelts are a must.

Fuel-tank location is well thought out; doors are crash-protected; the bonnet is front-hinged for safety; and rubber inserts and overrides give a

claimed protection against parking bumps at up to 3mph.

Living together

Renault's rust resistance has come a long way since the early 1960s; in fact, its 16 model set a standard that subsequent designs have equalled. We've noted flaws in chrome and paint finish, and underbody sealing hasn't been as thorough as the best; yet the marque's basic priming and painting seems to resist rust well, and Renault now backs it with a five-year warranty of the main structure (though customers pay for check-ups to keep it valid). There's also new chip-resistant pvc on sills and extra treatment underneath.

As in the TL, underbonnet accessibility is excellent, and DIY-types won't have to lift it so often, either, with routine service intervals at 10,000 miles and an only oil change at halfway.

The 20TS is easily valeted, but

carpets are stapled in place so have to be cleaned in the car. Insurance companies are never keen on up-market foreigners, and rate the 20TS as a Group 6.

Renault has learnt the Oriental way of seducing the motorist. While rivals such as the Fiat 132 may equal the 20TS's excellent economy, and better its adequate performance, this nationalised Frenchman also woos the public with sybaritic extras that add glamour to an already comfortable image.

Renault is confident enough to name its rivals and ask: 'How many have electro-magnetic door locking?' And it's a fair boast when exotic touches such as this are married to cavernous hatch-back body that cannot fail to attract estate-car fanciers.

Practical, pampering and penny-pinching—three French estates in one. The last time that happened, it started a revolution...

Fiat 132 2000

Price £4595 On the road £4695



THE ONE THAT GETS AWAY—IN STYLE

From the moment it was launched in 1972, Fiat's 132—heir-apparent to the aristocratic 130—was beset by criticism of its poor ride, handling and lack of power. Even juggling 1600cc and 1800cc engines failed to impress the public.

In Turin, Fiat set about redeeming the 132 with a major interior refit for improved luxury, a brand-new, rally-bred 2litre twin-cam engine for performance with economy, and revised suspension for better roadholding.

It entered the market-place just a year ago. But is it a better car?

How it goes

The 132 2000 is the star performer in DRIVE's 2litre collection, even though its advantage over the 1800cc 132 is marginal.

The efficient automatic choke

gives a prompt and economical cold start, and the carburettor's flat spots during the first mile disappear once the engine warms.

Proving that fifth gear is simply an aid to relaxed high-speed cruising, DRIVE achieved its 105 mph top speed in fourth. With the highest overall gearing of the group, top-gear acceleration is naturally casual, with 30–50mph taking 11sec; but dropping to fourth does the same thing in a 9.2sec burst that none in this trio can match. By 70mph, fifth gear pulls while rivals run out of puff.

Over DRIVE's usual 1000 miles of testing, the 132 returned consumption figures virtually identical to those of the Renault. At 29½mpg overall, it's more frugal than the old 1800cc 132.

Axle whine from the test car at round-town speeds was irritating,

and short-journey drivers will find that plug-fouling calls for a quick burst of speed.

When the gear shift on the test car had warmed to its work, an initial obstructiveness gave way to a delightfully slick action with a spring bias into the third/fourth plane; but—stay calm, Fiat!—it is just possible to shift from third to reverse. While the clutch is light, it is a little long in action, and its operating angle can make town driving tiresome. When asked to restart on a 1-in-3 hill, it could only just claw its way up.

Fiat has retained the front-independent, live-rear-axle suspension that was slated by car critics in the not-too-distant past, but subtle changes now earn it a pat on the back. It may not be as good as some rivals with independent springing all round, but 132 ride and handling is better than that of Ford's Cortina, for example.

The Fiat cossets its occupants on poor roads, with bad bumps halfway round a fast corner producing only a hint of a wiggle from the rear. The Fiat may fidget around town, with a bump-thump from the back tyres intruding occasionally, but the out of town ride is always pleasing.

New Pirelli P6 low-profile radial-ply tyres and power steering have turned the 132 from a ponderous, heavy hulk into a rewarding drive. The recirculating-ball steering system is so well weighted that its power assistance sometimes cannot be detected, but, like a true friend, it's always around when it's needed, and seen-it-all-before testers would brook no criticism of its performance.

Testers didn't like the brakes' initially fierce response—a Fiat

failing—but the crash-stops were the best recorded for some time. Theoretically, 'ideal' brakes should produce a 100% best stop at 55–70lb of pedal pressure, and continue at that efficiency regardless of further effort. No one has yet built that brake at a sensible price, but this Fiat impressed.

Inside story

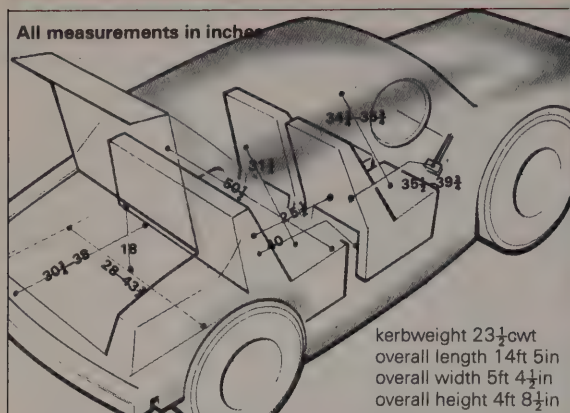
The interior of the 132 2000 is considerably more attractive than its unprepossessing three-box exterior suggests, though innovations such as the slide-away smoked-plastic sunvisors were not to everyone's taste.

Clearly visible through the two-spoke steering wheel is Fiat's neat and comprehensive instrument panel. The speedometer and tachometer are styled with quirky, quadrant-shaped faces—the latter cautiously red-lined at 6000rpm. Gauges, a battery of 10 warning lights and a quartz clock are grouped to the right, Fiat thoughtfully providing both an oil-pressure gauge and a low-pressure warning light.

Would that all the instruments were as accurate as the clock! A speedo that reads 70mph at a true 63mph may keep a driver law-abiding, but it will also do fictitious wonders for the amateur tester's fuel-consumption figures, especially when the odometer also errs on the generous side. Has Fiat forgotten about the new gearing, and the fact that low-profile tyres also change wheel diameter?

Column stalk controls follow the usual Fiat pattern, with one for wipers and washers on the right and two for indicators and main beam on the left. The lights are operated by a rocker switch to the right of the instrument pack, and

All measurements in inches



kerbweight 23 1/2 cwt
overall length 14ft 5in
overall width 5ft 4 1/2in
overall height 4ft 8 1/2in



powered front windows by two rockers on the centre console.

Soft velour seating has been recontoured to give more lumbar and lateral support, but DRIVE has some doubts about its long-term serviceability. Doors open wide, but the checks are weak.

'At last, an Italian car that feels comfortable behind the wheel,' sighed one tester—yet our long-legged man complained of an aching right knee after 10 miles. The seat cleverly raises itself higher as it moves forward, but some drivers still need to be farther from the pedals. Happily the arms of a gorilla are not needed to reach the wheel, even though it adjusts only for rake.

Elderly passengers will appreciate the high rear-seat cushion and the small transmission hump, not to mention the ample rear legroom; but there were familiar complaints about the 132's poor headroom.

There's a small illuminated glovebox that doesn't lock, but the only storage for the driver is a slim pouch in the lining of the smart roof moulding. While the boot can be opened or shut with or without a key, its interior is not conveniently shaped, and the spare wheel is buried in the floor.

The heater could probably roast the Sunday joint—DRIVE expects subtler talents—and it is disappointing to find that back seat passengers get cold feet due to the absence of heater outlets in the rear of the car. Constantly-illuminated slide controls respond instantly, though, and fresh-air vents work well on ram pressure alone over 30mph, where drivers enjoyed cool heads and warm feet.

Americans and Swedes may trumpet their safety measures, but Fiat sells a different image and so underplays its worthy provisions. Doors, for example, contain structural beams to protect against a side-swipe crash, and front seats have a backing of steel plate to obviate back injuries caused by rear passengers' knees. What rear passengers' knees make of this is another matter—the 132 doesn't come with rear seatbelts.

AA experts wouldn't call the

interior well-padded, and they disapprove of the closeness of passengers' heads to the back screen, the poor padding around windscreen pillars and the vulnerability of the petrol tank. The slide-away visors are excellent from a safety viewpoint.

Inertia-reel seatbelts work well and are easy to put on with only one hand—one qualification towards DRIVE's definition of 'convenient'—and the brakes have a load-sensitive valve that reduces the risk of skidding. Like the vast majority of modern cars, the body is designed so that its front and back ends will deform progressively in a crunch, leaving passengers cocooned in a rigid cell.

Living together

Fiat claims that its cars are subjected to the most advanced corrosion-prevention treatments possible, using electrophoretic dips to get paint deep into box sections. The underbody and lower panelling is protected by a layer of pvc, and wheelarches by plastic liners. It sounds very impressive, but an endoscope probe of the test car's cavities revealed many poorly treated and missed areas.

Rubber-faced bumpers and substantial rubbing strips across the doors may not look handsome, but they are some defence against car-park knocks. The test car's paint finish was impressive, but retouching could cause problems: Fiat offers the car only in silver, light-blue and gold metallics.

The 132 is easy to clean, apart from its fancy wheels and plastic grille. Velour seats are never the best place for dogs, cats and kids, though the test car did eventually respond to shampoo.

DIY types may fight shy of the complexities of a twin-overhead-camshaft engine, but they will appreciate maintenance-free Bosch electronic ignition. Topping-up is made easy by translucent reservoirs, and a special tool is provided to reach spark-plugs buried in the centre of the cylinder head.

Fiat's Mastercover Warranty promises that all you need to buy

over the first six months of ownership is oil and petrol: routine services are free—however many you may need—and the same goes for parts. Over the next 18 months (up to a maximum of 24,000 miles), 'all mechanical components' are covered against failure, so the Fiat's running costs ought to be low in the short term. Insurance is Group 6.

The 132 has re-emerged from its Turin training camp as much more of an all-round athlete, and in DRIVE's decathlon tests it wins almost every contest.

In contrast to the Opel, its muscular engine is sufficiently supple to make few demands of the driver's gear-changing arm. Yet, unlike the Renault, it's also ready and able to sprint in style.

The German might be more handsome, and the Frenchman more expansive, but this Italian's undergone a renaissance that lacks only attention to detail to make it a worthy Fiat flag-bearer.

Everyman Report

The Fiat got a mixed reception from the amateur drivers. Surprisingly, all its little extras put off some people...

David Everest voted the Fiat top—'the best driver's car of the group. It's obviously the quickest, and the noise is something you can actually enjoy. While I wasn't comfortable, the Fiat has so much going for it that I'd enjoy driving it.'

'Doesn't it go like a bomb?' said Joan Phillips. 'It's quiet at speed, very comfortable, with a nice ride and good cornering. The power steering isn't too light and I liked the brakes. I disliked only the seat-belt and the high sill on the boot.'

Denise Bewsy had more reservations: 'The ride was a bit bumpy, and I worried about the wind noise. I do a lot of motorway driving and I need a car that's good at speed, so I did like the fifth gear.'

Roy Kidman thought it wasn't his sort of car at all. 'I didn't like the driving position, and there was a lot of wind noise. I also kept mixing up the gears—it's far too simple to go from third to reverse.'

OPEL REKORD BERLINA

Front engine: 1979cc/4cyl, OHV (chain); one twin-venturi carb; 100bhp at 5200rpm
Rear drive: 4 gears, 19.25mph/1000rpm
Suspension: front—ind damper/struts, anti-roll bar; rear—coil sprung live axle, four links, Panhard rod, anti-roll bar
Steering: recirculating ball; 4 1/2 turns/34ft circle; 5 1/2J wheels, 185/70SR14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £35.64 (fitting 1.8hr)
exhaust £92.43 (1.2hr)
headlamp unit £21.92 (0.6hr)
front bumper £35.53 (0.9hr)
laminated windscreen £103.68 (2.1hr)

oil filter and points £4.45 (0.8hr)
major service 12,000 miles (2 1/2hr)

	per year	per mile
Running costs	£720	6.0p
Loss of value	£306	2.55p
Total depreciation	£1164	9.7p
Insurance group	6	

RENAULT 20TS

Front engine: 1995cc/4cyl, OHC (belt); one twin-venturi Weber carb; 110bhp/5500rpm
Front drive: 4 gears, 18.35/1000rpm
Suspension: front—ind wishbones, coil springs, anti-roll bar; rear—ind MacPherson damper/struts, anti-roll bar
Steering: power-assisted rack and pinion, 3 1/4 turns/37 1/2ft circle; 5 1/2B wheels, 165SR13 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £60.13 (fitting 6.5hr)
exhaust £118.20 (1.7hr)
headlamp unit £51.41 (0.6hr)
front bumper £55.62 (1.6hr)
laminated windscreen £66.96 (1.5hr)

oil filter and points £5.02 (1.0hr)
major service 10,000 miles (3.0hr)

	per year	per mile
Running costs	£752	6.27p
Loss of value	N/A	
Total depreciation	N/A	
Insurance group	6	

FIAT 132 2000

Front engine: 1995cc/4cyl twin OHC (belt) 1 twin-venturi carb; 112bhp/5600rpm
Rear drive: 5 gears, 23.1mph/1000rpm
Suspension: front—ind double wishbones, coil springs, anti-roll bar; rear—coil sprung live axle, lower radius arms, upper trailing links. Steering: power-assisted recirculating ball, 3 turns/35 1/2ft circle; 5 1/2J wheels, 185/65R 14 radials
Brakes: servoed discs front/drums rear

Parts/repairs (inc VAT)
clutch £53.00 (fitting 3.6hr)
exhaust £66.09 (2.6hr)
headlamp unit £23.71 (0.6hr)
front bumper £39.37 (0.4hr)
laminated windscreen £69.07 (0.8hr)

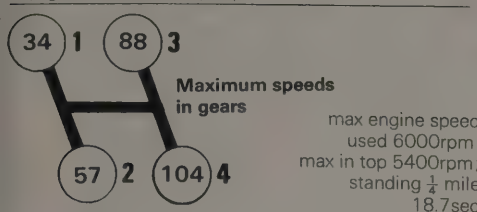
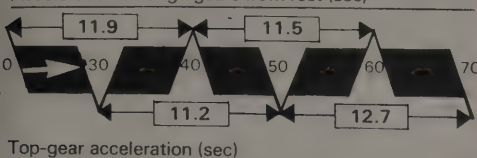
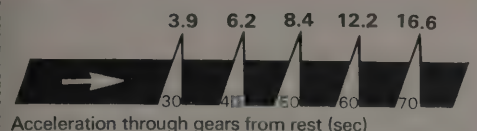
oil filter (no points) £2.68 (0.1hr)
major service 12,000 miles (3.05hr)

	per year	per mile
Running costs	£706	5.88p
Loss of value	£285	2.37p
Total depreciation	£1236	10.30p
Insurance group	6	

THE RIVALS CLOCK IN

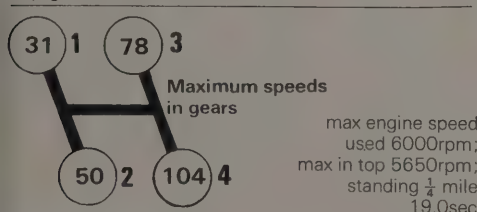
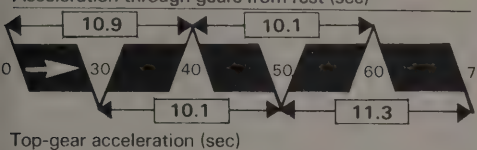
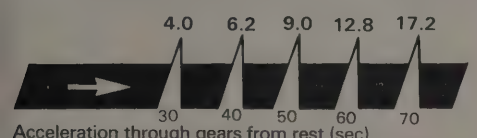
Ford Cortina 2000 Ghia
Peugeot 504 TI
Vauxhall VX2300
Colt Sigma 2000GXL
Audi 100LS

PERFORMANCE



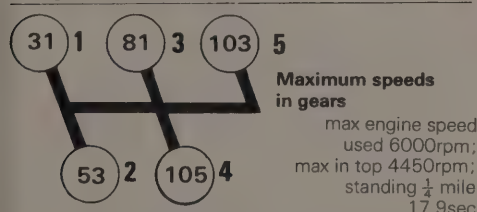
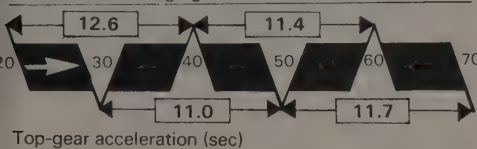
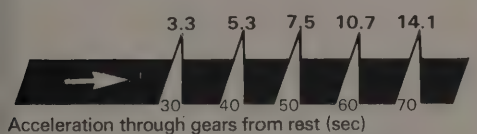
max engine speed used 6000rpm;
max in top 5400rpm;
standing $\frac{1}{4}$ mile 18.7sec

PERFORMANCE



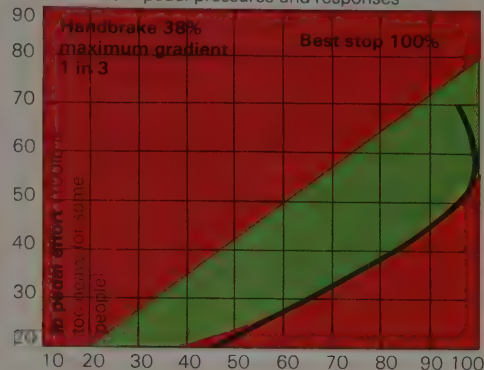
max engine speed used 6000rpm;
max in top 5650rpm;
standing $\frac{1}{4}$ mile 19.0sec

PERFORMANCE



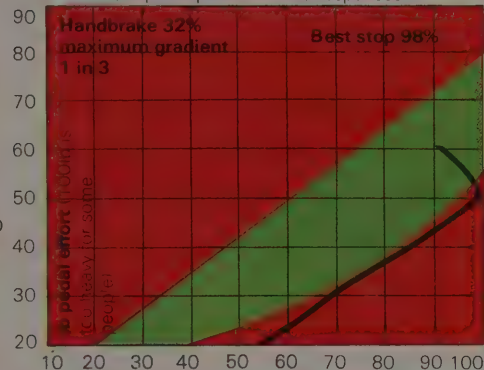
max engine speed used 6000rpm;
max in top 4450rpm;
standing $\frac{1}{4}$ mile 17.9sec

BRAKES—pedal pressures and responses



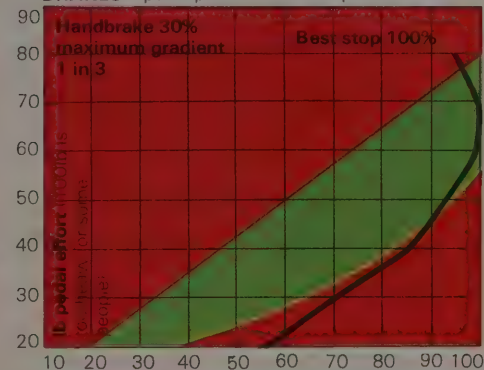
% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)
Fade test pedal pressure needed for 75% stop (ideal car would show no variation)
35lb at start **35lb** in constant use **77lb** in severe use
Watersplash 6 stops to recover

BRAKES—pedal pressures and responses



% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)
Fade test pedal pressure needed for 75% stop (ideal car would show no variation)
35lb at start **30lb** in constant use **65lb** in severe use
Watersplash 6 stops to recover

BRAKES—pedal pressures and responses



% efficiency (ideal car's braking performance falls within central zone—above, too heavy, below, too light)
Fade test pedal pressure needed for 75% stop (ideal car would show no variation)
35lb at start **21lb** in constant use **55lb** in severe use
Watersplash 3 stops to recover

FUEL 4-star/98 octane min
overall consumption 28mpg
effective tank range 335 miles/12gal

Normal range of consumption

short journey, suburban	21½mpg
hard driving, heavy traffic	23½mpg
motorway—70mph cruising	28½mpg
mixed roads—brisk 50mph cruising	28½mpg
quiet rural—40mph cruising	32½mpg

Consumption at steady speeds

30mph	48½mpg
56mph	34½mpg
70mph	28½mpg
max mpg	17mpg

SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	No

FUEL 3/4-star/96 octane min
overall consumption 29½mpg
effective tank range 365 miles/12½gal

Normal range of consumption

short journey, suburban	22½mpg
hard driving, heavy traffic	24mpg
motorway—70mph cruising	28½mpg
mixed roads—brisk, 50mph cruising	29½mpg
quiet rural—40mph cruising	34½mpg

Consumption at steady speeds

30mph	47½mpg
56mph	34mpg
70mph	28½mpg
max mpg	17½mpg

SAFETY CHECKS O = factory-fitted option

steering: energy absorbing?	No	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	O	w/screen: laminated?	Yes
front belts: effective?	O	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	Yes
		brakes: failsafe?	Yes
		load sensitive?	Yes

FUEL 4-star/97 octane min
overall consumption 29½mpg
effective tank range 320 miles/11gal

Normal range of consumption

short journey, suburban	22½mpg
hard driving, heavy traffic	24mpg
motorway—70mph cruising	28mpg
mixed roads—brisk, 50mph cruising	28mpg
quiet rural—40mph cruising	35½mpg

Consumption at steady speeds

30mph	41½	44mpg
56mph	31½	34mpg
70mph	26	28mpg
max mph	14½	15½mpg

SAFETY CHECKS

steering: energy absorbing?	Yes	hazard warning: fitted?	Yes
front seats: secure mounts?	Yes	interior: well padded?	No
head restraint?	Yes	w/screen: laminated?	Yes
front belts: effective?	Yes	doors: crashproof?	Yes
convenient?	Yes	childproof?	Yes
rear belts: fitted?	No	petrol: spillproof?	No
		brakes: failsafe?	Yes
		load sensitive?	Yes

PRICE (£)	CAPACITY (CC)	FUEL OVERALL (MPG)	MAXIMUM SPEED (MPH)	0-60MPH (SEC)	30-50MPH IN TOP (SEC)	BEST STOP (% g/lb)	OVERALL LENGTH (FT/IN)	MAXIMUM LEGROOM FRONT (IN)	TYPICAL LEGROOM REAR (IN)	STEERING TURNS/ CIRCLE (FT)
4536	1993	27½	96	12.7	10.3	98/95	14' 2"	40½	40	3½/34
4927	1971	26½	104	11.1	9.9	87/95	14' 9"	39½	40	4½/33
3955	2279	26½	101	12.2	8.9	93/45	14' 11½"	41	42½	4/36½
4332	1995	27½ (2*)	95	14.1	9.6 (4th)	100/100	14' 2"	40	38½	4½/34½
5145	1984	29	108	11.9	10.2	96/55	15' 4½"	43	42	4½/35½

4th-4th gear



As you'd expect, it has a built-in computer as well.

This amazing new in-car stereo combination unit is the Hitachi Digital 1.

It's the only digital read-out combination on the market. Yet it costs no more than the other top-quality units, and it fits into the standard (Din) dashboard space.

As we mentioned, there's a micro-computer. It remembers the exact waveband of six radio stations, and tunes in at the touch of a fingertip. While for a much wider selection, there's a self-seeking device that moves automatically from one station to the next. And naturally there's the NC noise-limiting circuit for superb, interference-free reception.

The cassette system is the type you usually find in a hi-fi deck. Or a top range music centre.

It has a superior cradle, with separate on/off and eject controls, to take care of your precious tapes. And you don't have to keep your finger on the fast forward or rewind buttons. (Some manufacturers cut corners, Hitachi know you have to drive round them.)

In fact, the Hitachi Digital 1 is one of the most reliable sets you can buy.

As you might have expected.

 **HITACHI**
"In a word, reliability."

The Hitachi Digital 1 is available only from garages and specialist In-Car Entertainment dealers. If you'd like further details, write to Hitachi Digital 1, Hitachi House, Station Road, Hayes, Middlesex UB3 4DR.



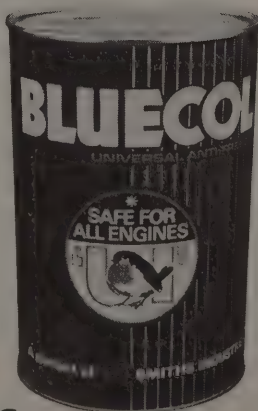
Cheap anti-freeze could land you in a lot of hot water this winter.

In the next week or so, if you value your car you'll be filling up with anti-freeze for the winter.

But this time, don't make the mistake many motorists did last year.

They filled up with cheap anti-freeze. And it cost them.

Cheap anti-freeze is blended from methanol. It's highly poisonous. It evaporates quickly (so you can't tell if the mixture's still effective). But, worst of all, it's more flammable than meths.



A careless cigarette. A lighted match. A spark from a fire. And your car could be barbecued. And maybe you could be too. There's only one way to be safe this winter. From fire as well as frost. And that's to pay a little more – and use ethylene glycol anti-freeze as recommended by every major motor manufacturer.

Bluecol is the leading ethylene glycol brand. And it gives you complete protection for the price of about two gallons of petrol.

Bluecol safety costs a little more.

Today, one of these 20
drivers should stay at
home. Which one? The
answer lies in

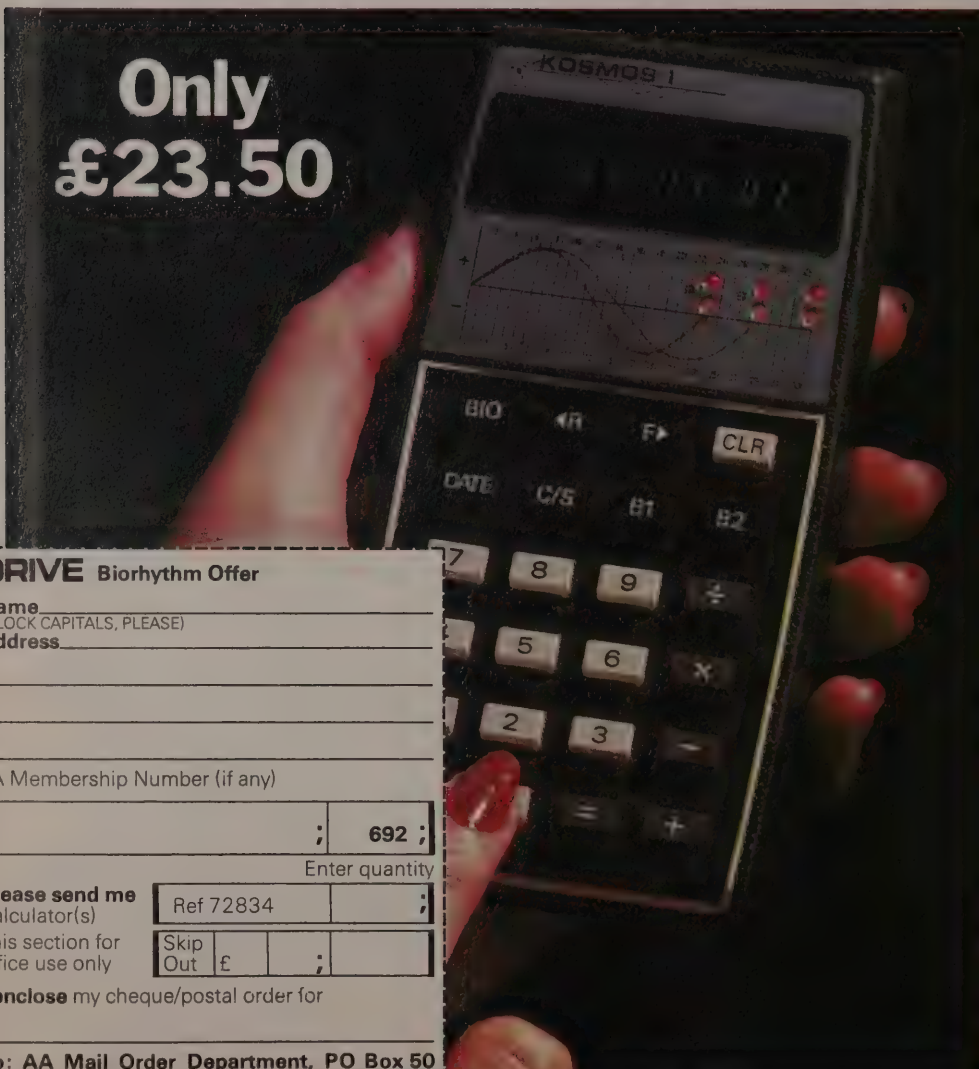
GOOD VIBRATIONS



NO, THIS ISN'T just another calculator—it's a biorhythmic computer. With this, you can work out the intellectual, physical and emotional highs and lows of your life. And from that, say enthusiasts, you can foretell what is likely to be a bad or good day for your driving, working, loving and general living. You can even work out your compatibility with other people. (And it'll add,

subtract, divide and multiply, just like a normal calculator!) The Kosmos 1 Bio-rhythm Calculator sells at a recommended retail price of £29.95; with DRIVE's Special Offer, you can buy it for just £23.50. Order yours NOW by completing the coupon and sending it with a cheque or PO payable to the AA. Offer closes 30 March 1979; available only to readers in Gt Britain and N Ireland.

Only
£23.50



THE NEXT time you are in your car, think for a moment about how you are driving. Do your reactions seem a little slower than they were a week ago? Did you forget to look in the rearview mirror when you pulled out to overtake? Are you feeling irritable with other road-users...?

Most of us will admit to having had days plagued with such temporary lapses. Most of us no doubt dismissed them at the time as 'off' days, when nothing seemed to go right. They happen, and there's nothing we can do about them.

Or is there?

Subscribers to the science of biorhythms say that these 'off' days conform to a rigid pattern that can be predicted, and that there are so many of them that, in a motoring context, each day one in every 20 drivers runs a serious risk of having an accident.

Biorhythms, say the believers, govern our lives in everything we do, from waking, working and eating to loving, drinking and sleeping—and driving. Tom Barlow is a hypnotherapist who runs the British Institute of Biorhythm Research; he says: 'The days when a driver is at risk do not necessarily mean he should not be driving, but they do mean he should be extra-careful. I am convinced that, if drivers were made aware of their biorhythms, road accidents could be cut dramatically.'

Biorhythms are the three life-energy rhythms—the physical, emotional and intellectual cycles of the body—that some scientists claim are responsible for us feeling on top of the world one day and down in the dumps the next. These rhythms ebb and flow within us all, reaching peaks and lows with the regularity of Greenwich Time itself. The physical cycle lasts 23 days from start to finish, the emotional (or sensitive) cycle 28 days, and the intellectual cycle 33 days.

'You may not feel necessarily on top of the world when your biorhythms reach a peak,' says Barlow, 'but neither will you feel necessarily bad when they drop to a low. Research has shown that the crucial times—times when caution is needed,

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particularly in an activity such as driving—are when any of the rhythms begins a new cycle, or when a rhythm reaches the halfway mark of its cycle.

'The greatest danger, however, when a driver could most lack concentration and have slower reflexes, comes when any two rhythms arrive at critical points on the same day—which will happen six or seven times a year—and on the one day in every year when all three meet together.

'These days are termed double-critical and triple-critical. On a triple-critical day, a driver will be biorhythmically uncontrolled, and should be wary of driving . . .

Statistics given to support the biorhythm theory are impressive. For instance, a group from the Sheffield Junior Chamber of Commerce analysed 400 motor accidents in S Yorks 1975 in which the car drivers had admitted fault. 'On the basis of chance,' says group leader Paul Edson, 'we could have expected one in five to have occurred on critical days. In fact, our analysis showed that twice that number were having critical days.'

The Sheffield group also studied the biorhythms of pilots involved in 80 UK air accidents in a recent four-year period . . . and found that 36% of pilot-error accidents occurred on pilots' critical days (1½ times the chance expectation), and 9% on double-critical days (4½ times).

British Rail, too, has dabbled in biorhythms. Two years ago, a medical team investigated injuries and deaths of railway workers on the Eastern Region, together with incidents of train drivers passing signals at red. The biorhythmic patterns of 223 railwaymen showed that, of 88 men injured, 61 had their accidents on critical or double-critical days; of 43 killed, 33 were on critical days; and of 92 drivers passing signals at danger, 74 were biorhythmically out of line at the time. The overall occurrence of critical days was almost 70%—more than *three times* what could be expected on the basis of chance.

Faced with statistics similar to these, and



with a soaring road-accident rate, Japan has tried to give biorhythms a chance to prove itself a science. In 1967, Dr Kichinosuke Tatai, one of the pioneers of the study of biorhythms and now a director of the Japan Biorhythm Laboratory, instituted a programme that was so successful that it has since been taken up by some 5000 Japanese companies, many of them in transport. The results claim that:

● Tatai cut the accident rate among one taxi company's drivers by almost a third overnight, and by half within the next four years, simply by explaining the biorhythm theory to cabmen and advising them to take extra care on their critical days, which he plotted for them. New drivers joining the company were not allowed to work on critical days until they appreciated fully the principles involved

● a Yokohama telephone office not only eliminated accidents among its motorcycle dispatch riders in the first year that biorhythms were applied (after 28 accidents in one year alone), it even cut down on wrong deliveries of telegrams

● when biorhythm charts were introduced

to one railway, its 700 employees travelled a record 3,125,000 miles—equal to more than six round-trips to the moon—without an accident

● and the transport company of Tobu Tsuum reduced accidents by 40% by using biorhythm data, saving themselves 17 million yen (about £24,000) in repairs.

Others have been quick to follow Japan's example. In Switzerland, the Zurich Municipal Transit Company claims to have halved accidents with biorhythm charts; the Canadian transport company, United Trails, says that its biorhythmic plan has cut down on accidents—it found that 86% of accidents befell its drivers on, or within 24 hours of, a critical day; and, in the US, United Airlines has put 28,000 of its staff on biorhythm charts and reports a 'considerable drop' in accidents.

In Britain, one man who has tried to emulate the Japanese success is 43-year-old dentist John Chipping, an accident-prevention consultant of Wedmore, Somerset. He was called in by Middlesex transport firm A E Edmunds Walker to introduce a biorhythmic programme for 250 drivers—and had mixed results.

Following a Tatai plan, Chipping issued a series of coloured cards for drivers to

affix to their windscreens on critical days. These warned them of the times when they would be physically critical ('watch your speed, and the distance behind the vehicle in front'); emotionally critical ('be extra-careful when turning and overtaking'); and intellectually critical ('you could easily become careless over road signs, parking and traffic lights').

'Unfortunately, it proved inconclusive,' says Chipping, 'mainly because of the high level of staff turnover. Supervisors, however, did say that some accident-prone individuals ceased to have accidents.'

'The biorhythm plan didn't seem to make a lot of difference,' says the company, 'and we have now phased it out. But there was a complete lack of interest in the subject by both labour and management, so perhaps it would be unfair to attempt a proper analysis...'

Further scepticism comes from the Transport and Road Research Laboratory, whose accident and investigation division has charted the biorhythmic influences on 112,000 accidents involving 96,000 men and 16,000 women drivers. 'Our analysis is not quite complete,' says a spokesman, 'so we cannot go into details at this stage. But the indications are that the dramatic effects of biorhythms reported elsewhere are not substantiated.'

The biorhythm believers, however, are undismayed. One man who is convinced that energy cycles have a part to play in motoring is Jeremy Barrett, of the British

School of Motoring: 'You just can't argue with the statistics that have come out of Japan. They are startling. Our instructors are now asked to make a note of their "off" days, and to take biorhythmic factors into consideration when they are on the road teaching. We want them to understand that, the day a learner-driver doesn't appear to be handling the car properly, it is not necessarily his fault. It could well be that the instructor's own biorhythms are out of gear.'

Further support for biorhythms has just been announced by a new executive charter airline, Northern Airways, based at Prestwick. All its pilots are being programmed for biorhythms, and they won't be allowed to take charge of aircraft on double-critical days.

The arguments for and against biorhythms are unlikely to be resolved in the foreseeable future. Is it a science or just silliness? Are we a danger on the road on certain days without realising it? Did we crunch that car in front simply because our rhythms were passing through a critical stage? Were we intellectually below par when we shot that traffic light?

All that the enthusiasts ask is that you consider the following events taken at random from hundreds in their files:

When Neville Chamberlain signed his notorious 'Peace in our time' agreement with Adolf Hitler, in September 1938, he was on a double-critical day...

So, too, was Prime Minister Anthony

Eden in 1956 at the time of the Suez crisis...

Boxer Muhammed Ali was not at his greatest when he met Ken Norton in May 1973—he was due for a double-critical day; the result was a broken jaw and defeat for Ali...

Grand Prix driver Niki Lauda was at his lowest point, both physically and mentally, when he crashed and was almost burnt to death in his blazing car at Nurburgring in W Germany in 1976...

Disappearing MP John Stonehouse also had his biorhythms against him when he 'went for a swim' in Miami...

Both Elvis Presley and Bing Crosby were on double-critical days when they died...

Mark Spitz scooped his seven gold medals at the Munich Olympics while his physical cycle was on its upward, 'strong' curve, and flopped in the Mexico Olympics when his physical cycle was on its downward, 'low' path...

Golfer Arnold Palmer won the 1962 Open Championship at Troon by four shots when he was on a triple-high...

Scotland's ex-World Cup manager, Ally MacLeod, found that team selection based on biorhythms while he was boss at Aberdeen FC produced 50% accuracy—but decided against biorhythmic selection for Scotland's World Cup games this year, saying: 'I would rather we stood or fell by our own efforts' (a sore point ever since among Scottish biorhythmic football followers)... JIM BUSH

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MOTOR SPORT

Marques and sponsors

TEN YEARS AGO, John Player became the first of the tobacco giants to sponsor motor sport, painting its brand-name Gold Leaf on the side of Colin Chapman's Lotus 49, then being driven by Jim Clark in the 1968 Tasman Series.

Player's initiative was welcomed. Motor racing was beginning to get very, very expensive, and the front-running teams were no longer able to survive on the appearance money paid by race organisers. They needed the injection of outsiders' cash.

Rothmans, Wills, Marlboro, Lucky Strike and Gitanes followed John Player's example, blazoning their colour schemes over the sleek bodywork of the

world's leading racing cars to the point where a starting grid viewed from the top of the grandstand looked like a collection of aerodynamic cigarette packets.

Over the years the tobacco companies have, between them, poured millions into motor racing. But now the enthusiasm with which the sponsors were welcomed has swung through 180 degrees: government and public opinion say they must go. It is 'immoral' to use sport to promote and advertise a 'killer drug'.

In Germany, tobacco sponsorship in sport is now outlawed. It hasn't happened yet in Britain, but it cannot be far away. At this year's British GP, John Player 'voluntarily' removed its name from the sides of the Lotus cars...

There is another pressure group that suggests that *all* sponsorship is wrong because it provides 'free advertising'. Yet there is nothing

free about the advertising that appears on the side of a racing car, whether it is for a tobacco company or any of the multinational consumer giants that have joined the fray. Professional marketing men have looked at their budgets and decided where to buy their visibility—ads in the *Daily Express*, on the side of a bus or on the body of a racing car.

Apart from a minor outburst recently by a group of athletes who spurned the sponsorship of a tobacco company, most of the brickbats seem to be aimed at the conspicuous world of motor racing. I haven't heard anyone saying that John Player's Cricket League is bad, because, I suspect, of the sport's true-blue nature.

But motor racing is different. It seems to be there to be knocked. It's *not* peculiarly true-blue, and it's very, very noisy...

Is there really any difference

between the Valvoline badge that Mario Andretti wears on his overalls and the British Airways umbrella that Jack Nicklaus' caddy lugs from green to green, or the Admiral tracksuits worn by England's soccer heroes?

If the anti-sponsorship lobby has its way, and all the so-called free advertising of direct sponsorship is banned, the problem is not motor racing's alone: where will tennis, cricket and golf in this country be without similar help? Such finance can make the difference between life and death for any of these sports.

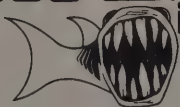
Professional sport is a free market that, with the aid of industry, supports itself. Allow government to protect our minds from 'pollution' by advertising, and professional sport could go the same way as the other concerns that government has sought to protect.

NICK BRITTAN



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ECONOMY

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Allam Motor Services,
48 Upper High St.,
EPSOM. Tel: 25920

Broadspeed Eng.,
Banbury Rd.,
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Hanham, BRISTOL.
Tel: 676563

*Sportstune,
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Tel: 556 3507

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Tel: 08443 392

Turnpike Motors,
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London SW11. Tel: 223 9247

Supertune,
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Tel: 0683 58309

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Tel: 794 7766

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73a Lakefield Rd.,
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COVENTRY. Tel: 77222

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LONG-TERM CELICA TOYOTA

JOHN HOLLOWAY, 40-year-old director of a company producing video films for industry, living at Wimbledon, finds that most of the electronic equipment he uses in his work is ultra-reliable... and made in Japan. The fact influenced him last June, when he decided to change his Lancia Beta coupé for a new Toyota Celica XT2000 and become the newest recruit to DRIVE's growing long-term test car club.

John's attention was drawn to the Toyota liftback by an advertisement in *The Sunday Times* magazine, and he placed his order with Belgravia Service Garages, of Tooting, south London, asking for delivery as soon as possible. In fact he had to wait three months for the colour of his choice—a smart metallic black—but his 'reward' was his amusing numberplate: EGO 595T.

The negative side of the deal was that, while he waited for the car, a £250 rise pushed up the Toyota's on-the-road price to £5100; but that did include an automatic gearbox and real air-conditioning, as well as the host of goodies that Toyota fits as standard to its up-market models.

Says John: 'The dealer gave me £1600 for the three-year-old Lancia, but it was falling to pieces. The standard of finish didn't impress me, and my wife found it heavy to drive. Before that, I had two Triumph 2000s.

'I started to think Japanese when my business partner bought a Datsun 260 estate. It seemed ideal for the job, although I didn't much like the look of it. When I came to change, I couldn't find anything British that I fancied. I looked at the new Cortina and Capri, but I wanted something more unusual.'

When John brought the car to Basingstoke, Hants, for its first

AA check, engineer Chris Warwick enthused: 'Everything on this car feels as though it is going to work. There is no rust anywhere, apart from a few speckles behind the bumpers and on the bumper brackets. It's certainly the best of the long-term cars I have inspected...'

John Holloway drew Warwick's attention to the driver's seatbelt, which didn't work, and the liftback that needed a good slam to shut. Warwick took two seconds to fix the seatbelt—the reel, he guessed, had been kicked out of line—and he told John: 'I'd rather the tailgate was a bit tight at this stage than leaking water later on.'

Inside, Warwick pounced on a loose screw in the centre console. The garage had fitted mudflaps all round, and these seemed 'rather insecure'. Up on the ramp, an endoscope confirmed that the anti-corrosion treatment had been properly applied, and that the one fault worth noting was a slight oil leak from the steering box.

During the road test, performance and handling were judged 'satisfactory', and Warwick noted that the steering displayed 'slight motion' around the straight-ahead position—the norm in vehicles using a recirculating-ball steering box rather than the European-favoured rack-and-pinion system. The steering wheel was also slightly misaligned.

LONG-TERM CITROEN



MANAGING director of a small Midlands engineering firm, 47-year-old Tony Potter had been determined to buy a Jaguar XJ6. But his local dealer didn't seem enthusiastic about providing a conversion for a man paralysed from the waist down.

Tony changed his mind—and, in the end, saved a considerable sum of money—by settling for a new Citroen CX2400 Super C-matic,

priced at £5400. Special hand controls were fitted in a day by a firm of specialists in Drifffield, Yorks, for only £45.

Check 1 by the AA revealed severe hydraulic-fluid loss at the rear of the Citroen's engine, a fault that had been pointed out before Tony took delivery. Because he was keen to get driving, he decided the fault could wait—a mistake, for the leak caused some deterioration of the underbody sealant.

Sealant had also been larded on to the exhaust pipe, producing a very nasty smell; a balance weight was falling off the offside front wheel; and there was exhaust blow at the manifold.

Check 2, at 2152 miles, showed that the dealer, David Hiam Ltd, of Old Kingsbury Rd, Birmingham, was determined to provide an efficient back-up service.

Nonetheless, our AA engineer found a loose hose on the cooling system, a missing cap on an hydraulic reservoir, and a crack in the laminated glass windscreen. The loose balance weight had in fact fallen off, and small underbody areas at the rear required sealant to keep rust at bay. The real surprise was the discovery of a plastic drinking cup buried in the underbody sealant.

In addition, both front wheels showed evidence of rubbing against chassis members on full lock.

Worried by a whine from the front end, Tony took the car back to the dealer who traced the noise to a squeaky water pump—cured instantly by an oil can.

LONG-TERM ALLEGRO



PETER AND JACKIE Murray run a home for the elderly at Burnham-on-Sea, Somerset. Since

1 April, they have been running an Austin Allegro 1300 Super and submitting it for DRIVE scrutiny.

Economy and reliability were the



Murrays' chief requirements, and the fact that a BL dealer was just around the corner decided them on the Allegro. True, Jackie had had her heart set on a Citroen GS, but the nearest dealer was 20 miles away... and the BL man did offer them a Superdeal price for their old Vauxhall Viva.

Check 1 found our AA engineer leaping to the car's defence with the comment: 'This Allegro is



J BULL'S FIRST CAR

Late starter, non-starter

by ANGUS MCGILL

I CAME TO driving a little late, but I took to it at once. I don't like to boast, but you either have it or you don't. My driving school was so impressed that it gave me a

team of instructors and, after 114 lessons, entered me for my test.

I failed, of course. They have to do that the first time, don't they. In my case, they did it the second and third time, too. Nonetheless, the tester was complimentary: 'Well,' he said, 'we've survived.' But why hadn't I once gone into top gear? I patiently explained that I hadn't gone fast enough to get into top gear. True, he said.

My next instructor, a rather dour man, seemed absurdly put out when I slightly grazed his old Ford Popular against a bollard that had been placed most inconveniently in the middle of the road. It was he who suggested that I take lessons in my own car.

I liked the idea, and bought one the same day. My first car! It was an MG 1100, dark green, and

highly recommended by the man in the garage. It cost £600, and it was in this that I failed the next two tests and passed the fourth.

My last instructor, a highly-strung young man who was very keen on emergency stops, was pleased, I think. 'You passed?' he said when I got back. Still, old habits die hard: 'Careful,' he said as I pulled away. 'Hand signal. Look in the mirror. Keep in lane. EMERGENCY STOP!'

I let him out at the driving school, and suddenly there I was, alone in the car for the first time in my life. Alone, furthermore, in my own car, my first-ever car. There was no one to tell me what to do. I could drive anywhere, do anything. It was eerie.

What seemed to be the entire staff of the driving school

gathered at the window to see me off. I waved, looked in the mirror, put the car into gear, put my hand out of the window and moved off. But my prized possession seemed to be going very badly, and after a while there was a bit of a smell. It wasn't until I was home that I realised the handbrake was still on.

In the days that followed, I got to know a bit more about the MG—its number, for instance: FPB 570D... or was it FPD 740B?

On the second day, it stalled at some traffic lights. Most embarrassing. I turned the key and there was an empty click that sounded as if there were nothing under the bonnet. I pushed the car into a side road and waited two hours for a breakdown van. When he came, the mechanic turned the key, adjusted a nut in the depths

Mysteries of the East in SW19



Rod Clarke

comparable with any car in this price bracket. Provided the faults I've found are put right, it's in acceptable condition.'

The faults included a bad oil leak from the nearside halfshaft, a badly-fitted child safety seat—which had been fitted free of charge—and a nasty paint run under the filler cap.

Check 2, three months on, showed that the dealer had fixed the oil

leak and the child seat, and was making reassuring noises about the paint run. New problems included 'feathering' on both front tyres, calling for a steering geometry check, and brakes pulling the car to the right.

Check 3, at 5688 miles, caught the Allegro just before its first major service. But **DRIVE's** man found little to upset him, saying: 'On the whole, this car has been well

looked after by its owner... and is standing up well to usage.'

The rear wing had at last been resprayed, but there was poor colour-matching of the paint. So far as the AA's engineer was concerned, the paint job was still to be listed as a 'desirable repair'.

Otherwise, the Allegro scored highly, with only a faulty rear lamp and a dented rear valance.

Owner Peter Murray is less

critical than the AA man of his pride and joy: 'The paint isn't exactly the same colour, but I don't think it is all that bad. It depends on the light. Anyway, I'm not going to take it back to the garage. The dent? We hit a post in a car park about six weeks ago, but I'm not going to rush to get it fixed. As long as the car goes, it's all right by me.'

So far, Peter has bought 156 gallons of petrol and achieved an overall figure of 36½mpg.

LONG-TERM ALFASUD



IT'S HARD to guess at what gives British Airways pilot Tony Colin more fun—his aircraft or his Alfa

Romeo Alfasud 1300ti. Tony collected the car from Ormsby Cars, of Reading, Berks, last January—and **DRIVE** immediately put it to the test...

Check 1 After seeing **DRIVE's** first report on the Cortina, Tony expected us to find rust on his car—and there it was. An Endrust treatment had missed vital areas.

Check 2 Ormsby Cars' 1500-mile service was quite something, with panels resprayed to cure hair-line scratches and a poor rev counter earmarked for replacement. After the service, fuel consumption improved from 28½mpg to 31mpg.

Check 3 The replaced rev counter was in turn replaced: pilots demand accuracy from their instruments. An oil-pressure fault turned out to be a simple electrical failure. Best news for Tony came when Endrust took another crack at rustproofing—and, of course, the work is guaranteed.

Check 4, on 6 September, ended with AA engineer Chris Warwick admitting 'very little of significance'. An underside check showed that a new transmission end-plate gasket had been fitted, with the result that a previously noted oil leak had been reduced to 'an acceptable seepage'. A▶



'It's in there somewhere...'

of the works, and the engine started sweetly. 'Jammed starter motor,' he said. 'Five pounds.'

A jammed starter motor became part of my life. It happened at least twice a week, but I didn't mind. I had a spanner ready...

The MG taught me a lot. One day, in a rainstorm, old FPB just stopped, and nothing would persuade it to return to life. Again, it took a mechanic about 30 seconds to put it right. The plugs, he explained, had got wet. He dried them. Another £5.

This, too, happened often, and not only with my 1100. I was told that the plugs on all 1100s got wet in the rain because the engine was fitted sideways. Could this be right? It didn't sound right. My car didn't go sideways, after all.

It was in this car that I had my

first brush with the law. I was driving home late one night when a policeman flagged me down. 'This your car, sir?' he asked.

'Yes, it is,' I said, proudly.

'What is the number?' he asked... and I couldn't for the life of me remember. I couldn't remember anything about it, how it started, or finished—nothing.

He let me go, but I never managed to learn the number, perhaps because I didn't really get to like that car. Not really.

I heard that other people liked their cars, loved them even. But, though I tried, my heart wasn't in it. There was nothing all that lovable about it. In the end I traded it in for a Triumph 2000.

Now there was a lovable car. Remind me to tell you about my Triumph 2000 some time... ●

Important news for motorists!

Why risk your driving licence?

Check your breath instantly with **ALCOCHECK**

No motorist wants to risk causing an accident or losing his driving licence, and any alcohol increases the likelihood of road accidents. Now for the first time in Britain you can buy ALCOCHECK, the breathe-in repeat-use electronic instrument that checks your alcohol level auto-

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HOW TO ORDER:

ALCOCHECK costs £39.50 incl. p&p and VAT, but exclusive of batteries (needs 8 pen cells).

Fill in the coupon and post it to us, (Freepost, no stamps required) enclosing cheque or quoting your Barclaycard/Access/Diners Card numbers. Allow up to 21 days for delivery.

WARNINGS. Any alcohol increases the likelihood of road accidents irrespective of legal limits. The device provides no more than an approximate indication of the blood alcohol level. A person's blood alcohol level may continue to rise for some time after the last drink is taken, and repeat testing is advisable.

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D2

LONG-TERM TEST

slight oil leak from the engine oil filter suggested a faulty seal between the filter canister and its mounting.

Warwick went on: 'The left rear brake disc is corroded and scored on its inner face. This is possibly due to prolonged periods of parking at Heathrow—a feature of this car's life.'

During a road test, slight brake bias to the left was detected suggesting a link with the deteriorating disc. 'It should be referred to the dealer for attention,' said Warwick. Added Tony Colin: 'My dealer fitted free plugs at 6000 miles, but I've heard that the Lodge 2HLs, recommended by Alfa, are £3 each. I'm hoping the Lumenition electronic ignition now fitted will extend plug life.'

Tony's life with the Alfasud may be drawing to a close. He says: 'My wife, baby and I are going to Australia for four months in November, and I'm not sure whether to jack the car up and leave it, or sell...'

LONG-TERM CORTINA



THE FOUNDING member of DRIVE's long-term test club, David Jones, bought a Ford Cortina 1600GL automatic last November. His wife Julie was expecting their first baby at the time, and 27-year-old

David decided that his Capri would not fit the bill.

Check 1 The experts quickly found that a wing had been damaged and repaired, and that rust was already at home in the day-old car.

Check 2 Friary Motors, of Old Windsor, Berks, serviced the car in April and did the job well. But it failed to sort out wind howl from the passenger window. Fuel consumption averaged 20mpg.

Check 3 May, and still short of the 6000-mile service. A broken automatic choke was repaired, but the howling window defeated all-comers.

Check 4 David did a thorough 6000-mile service himself, taking two or three hours. He also personalised the car by adding locking nuts to the sports road wheels, a locking petrol cap and an ear-splitting pair of air horns. Friary Motors finally solved the window wind-whistle problem.

Check 5, on 6 September, found David still with only 6699 miles on the clock. All fluid levels were correct and the car idled smoothly, but a light rattle from the camshaft drive mechanism was audible. David had, he said, affected a temporary 'cure' by replacing the drive belt and adjusting the tappets.

A look underneath showed that a new pinion oil seal had been fitted in an attempt to cure a rear axle oil leak found on Check

don't let him get away with it!



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Car crime is on the increase. Last year 82,000 cars were stolen. Without adequate protection, your car could be next. Help prevent crime by fitting CARGUARD — the automatic alarm system you can install in minutes.

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The most civilised feature of the new Princess 2 is transparently obvious.



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Triplex Ten Twenty is a windscreen that revises the whole concept of motoring safety.

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The new generation safety windscreen

Austin Morris now fit Triplex Ten Twenty Super Laminated as standard on the new Princess 2 range.

That's because Ten Twenty is a new generation safety windscreen. It has won a Design Council Award for its safety leadership and its performance on the Rover saloon range.

If you drive a Princess 1, you can now specify Triplex Ten Twenty as a replacement screen.

Windscreens will never be the same again

More and more car manufacturers are realising that their cars are less than perfect if they still carry conventional windscreens.

The Princess 2 is the first high volume car to change to Ten Twenty as standard fitment.

Rest assured, it won't be the last.

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Allow 28 days for delivery, we will notify you if delay is longer.

Signature _____

DT



LONG-TERM TEST

4, but the leak was still there. AA engineer Chris Warwick said: 'The leak appears to be worse than before. Oil is being thrown from the pinion flange, fouling the underside of the floorpan.'

A road test revealed slight wheel-kick between 40mph and 50mph, suggesting that the front wheels needed re-balancing. Warwick was also irritated by a continuous squeaking from the front brakes that has always affected the car.

But it looks as if its life with David Jones is coming to an end: 'I've managed to save some

money,' he says, 'and I fancy a change. I wonder how long I can hold out before I'm tempted into a showroom? I have already been looking at a new 2litre Capri—partly out of interest and partly out of lust. I plan to hire one for a day from Avis and try it out.'

'We want to take a holiday in my father-in-law's caravan, and I'm sure a 2litre car would be better for towing. The Capri's hatchback would be very handy, too. To get a pram in the Cortina, I have to take the wheels off—the pram, that is.' ROBERT OXFORD



EATING OUT

Pot luck

MOST PEOPLE think they could run a pub, be a comedian or manage a restaurant far better than the people who actually do so. Which could be the reason why, in Britain, a new restaurant or other 'food outlet' (as they are known in the trade) opens every day of the year—and closes down, too.

Large companies owning chains of restaurants have the resources to research new outlets, but private individuals usually don't.

John and Anthea Blake, for example, didn't lack the capital to acquire and equip a charming, thatched farmhouse restaurant near a holiday-route junction on the A30. A Continental chef and Italian head waiter were taken on; elegant tables were surrounded by comfortable chairs; there was an eye-catching bar, and a sunny garden in which to take cocktails or linger over coffee; and, because the Blakes had allowed for running at a loss in the first month or two, dishes were inexpensive and wines reasonably priced.

John produced a well-thought-out advertising campaign in the local press and national 'glossies'. The day of the opening arrived... and nothing happened. In one month, they served nine meals; in two, the staff was paid off and the Blakes sold up.

It was a different story for Ian and Celia Blanshard. Opting out of the motor business in Bedfordshire, they bought premises in the picturesque Cornish village of Mawnan Smith and, with little more than Celia's love of cooking and experience confined to helping out in a new restaurant opened by an innkeeper-friend, they opened The Cockleshell.

Now, in their third year, they

have turned the corner to success. But at first it was uphill all the way. The biggest problem, says Celia, was finding out what people wanted, though they drew the line at 'plastic food'—'We'd eaten enough "boil-in-the-bag" stuff in the Midlands.'

They stuck to their guns despite the gloomy predictions of disaster from friends and 'experts' who insisted that they were doing everything wrong, including the piped classical music, and this summer they had to turn business away, accommodate late diners' orders, and stay open seven days a week, serving lunches as well.

If YOU want to open a restaurant, take courage, decide exactly what you want to do, and go to it. Some of the questions you will have to put to yourself—sooner or later—are:

Will you engage a chef, or do the cooking yourself? Can you cook a choice of dishes, freshly served, for 30 or 40 people at any time between, say, 12.30 and 2pm or seven and eight-thirty... day after day?

Can you cope with bookkeeping and VAT returns, salesmen, hangers-on, dishonest staff, drunks, people on special diets, fire and hygiene regulations?

And if you find these thoughts rather dampening, try a little pleasurable first-hand research at the restaurants below that have survived. ROBIN WILLS

✕ The Cockleshell Restaurant

Mawnan Smith, Cornwall (tel Mawnan Smith 250714) Well placed in this picturesque Cornish village, with easy parking, the Cockleshell is prettily decorated and comfortably furnished, providing interesting meals and good value. Dinner for two from about £10, including wine.

✕✕✕ Les Gourmets Restaurant

Rake, Hampshire (tel Liss 2377) Cooking is essentially and appealingly French in this spacious, restful Victorian house standing in its own wooded land adjoining the A3 between Petersfield and Hindhead. Dinner for two from £11; wine from £2.65.

Invoice

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Any car, new or used

With any make of new car, AA Motorsure begins when the maker's warranty expires, after 12 months or less. One premium of £49.50 gives you up to two years extended warranty insurance. Compare that for value! With a used car under 5 years old, driven less than 50,000 miles, AA Motorsure cover can begin 30 days after you buy it. You need only to obtain an engineer's AA insurance survey report, or if under 2

years old alternatively pay a small extra premium instead of the inspection.

All these parts

AA Motorsure covers the engine, pumps etc., gearbox and transmission, drive axle, steering, brakes, electrical, fuel and air systems. If they fail, Motorsure pays parts and labour costs up to £350 per job, a figure reducing with mileage, or a total of £1,000 over two years.

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Once insured, AA Motorsure puts no restriction on the maximum mileage your car travels. You only have to service it in accordance with the manufacturer's recommendations — though you are free to choose where this is done — and enter up a service record. If you sell your car, you can even transfer AA Motorsure to the new owner... an excellent aid to a sale!

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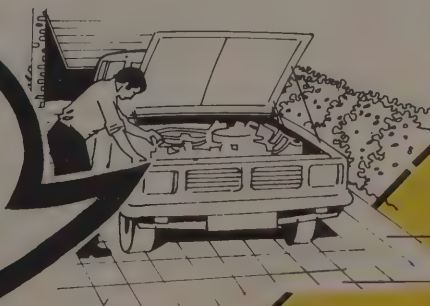
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**Hairspray for men from Cossack.
The best men's hairdresser in town.**



Clinic

Any problems? Whether they are technical, insurance or legal, DRIVE's experts can help. Write to: Clinic, AA, Fanum House, Basingstoke, Hampshire

French disconnection

I've been driving around in my eight-month-old Renault 15GTL, safe in the knowledge (or so I was led to believe by the handbook) that, when the brake pads needed changing, the warning light on the fascia would glow. But I've just read that this feature is reserved only for Renault 15s exported to the US.

Is this true? If so, the present situation could be dangerous. Why doesn't Renault either wire-up the warning light to work on the European version, or blank it off and delete all reference to it in the handbook once and for all?

—K ROSSER, NEWPORT

Yes, it is true, and the current Renault 15 handbook is rather misleading in that it does show a brake pad-wear warning light in its guide to the instrument panel. But, in fairness, it does also state in a footnote (albeit in small print) that

this feature is provided 'depending on option or equipment'. This point could certainly be more fully explained and, in fact, we're told that the 15's handbook will shortly be revised. Renault UK reports that it doesn't know if British 15s will be wired up or not in future. The decision will be taken in France.

Keeping the peace

Not long ago, I repaired my car silencer with a proprietary sealer and exhaust bandage. All seems well so far, but I'm worried that it might cause the car to fail its MoT test—due shortly. Is this likely?

—M R SANGSTER, LOST-WITHIEL
Provided you have made a sound, tidy job of the repair, there should be no problem. MoT regulations state that such a repair is acceptable if it effectively prevents leaks, and leaves the system structurally sound. Trouble arises when people do crude, botch-up jobs, and don't make the system completely gas-tight. But keep an eye on the repair and regularly check that the rest of the system is sound.

Mileage allowance

So far as I can tell by a stopwatch check, my car's speedometer is over-reading by 8%. Does this mean that the mileage recorder will automatically be exaggerating the car's true mileage by the same

amount?—P JONES, PONTNEWYDD
No, not necessarily. But if your odometer is reading either 'fast' or 'slow', it will give a false impression of petrol consumption. DRIVE has just tested a new car that had an odometer reading pessimistically by no less than 15%. If we had taken our mpg figures off the instrument without question, we would have rated its overall consumption as 18mpg; on a true reading it was giving 21mpg.

Losing your bearings?

Having read about the Austin Allegro that crashed because a rear wheel came off, I am anxious to ensure that the same thing doesn't happen to my 1973 1500 model; no garage up here seems to know what I'm on about! Could you explain the checks that are involved, so that I may do them myself?

—S WARD, FORRES
A lot of people—including garages, who should know better—haven't realised that Allegro rear hubs are not the same as those on old BLMC 1100/1300 models, which had to be tightened to 60lbft. The Allegro has taper-roller bearings, and the hub should be tightened only to 5lbft, then slackened off to allow just a trace of free play. Where hubs have been overtightened, the bearings have broken up, sometimes with dramatic results.

We don't advise DIY checks in this case: it would be best to

have the car examined by a BL dealer who will check that the hubs are correctly tightened and that their end-float is correct. From chassis number 140705 (late 1974), Allegros were fitted with special washers to prevent overtightening.

Double trouble

I am generally very pleased with my two-year-old Citroen 2CV, but I'm not too happy about having to change the sparkplugs every 7000–8000 miles to avoid trouble when starting from cold. The plugs in my wife's Mini don't give half the bother.

—J SNELL, MINEHEAD

Unlike most other cars with distributors geared to run at half engine speed, the 2CV's distributor is driven directly off the nose of the camshaft. This means that instead of firing every other revolution of the crankshaft, the plugs fire every single revolution—on both the firing and the exhaust strokes. Consequently they are firing twice as often as those in your wife's Mini.

But overwork is not the only snag, for the model's simple contact breaker also makes one of the plugs run in reversed polarity, as if the coil had been connected the wrong way round: instead of the spark travelling from the hot, central electrode to the cooler, side electrode, it goes the other way about. This gives the plug a hard time, and can put its voltage

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requirement up by as much as 40%. The result is that the side electrode erodes faster on this plug than on the other.

To equalise the wear, check the plugs every 3000 miles, re-gap them to 0.025in and swap them from one cylinder to the other. But still reckon on fitting a new set every 6000 miles or so.

Treble trouble

The factory-fitted radio in my Ford Fiesta 1300 Ghia sounds terrible because the perforated side panel through which the sound emerges seems to filter-out the treble; to hear clearly, I have to turn the tone control to maximum treble. With the panel removed, the tone is much sharper and clearer.

I'd like to disconnect the existing speaker and fit a pair of smaller speakers, one at each end of the fascia. How many ohms should they be?—W P WRIGHT, DORKING

The present speaker in your Fiesta has an impedance of 4ohms, so you will have to buy two new speakers, each of 8ohms impedance, and connect them in parallel. But, before you do this, check that the perforated panel over the existing speaker is not blocked by plastic sheeting or some other obstruction. Also, it may improve the treble if the perforated board is cut away and the speaker covered with the kind of

metal cover designed for use on rear parcels shelves.

Golf handicap

The position of the accelerator pedal on my 1975 VW Golf makes my right foot ache, even on short journeys. Is there anything to cure this?—R PAVITT, CHELMSFORD

One of our staffmen had this problem. He got in touch with his VW agent, who removed the offending

pedal and replaced it with one with a longer arm—as fitted to the latest Golf—which is closer to the floor, and much more comfortable.

Rolls rare

I've been told that, as my MGB is not fitted with a roll-over bar, it is unwise to wear a seatbelt because of the danger of being crushed should the car turn over in an accident. I have consulted

the new Highway Code, and other sources, but have not been able to obtain authoritative advice. What is your view?—G SHEPHERD, SOUTHAMPTON

No matter what type of car you drive, your chances of surviving most road accidents are far greater if you wear a seatbelt. Accident statistics prove that the majority of crashes are either head-on or off-side front-to-offside front. Roll-over accidents are comparatively rare.

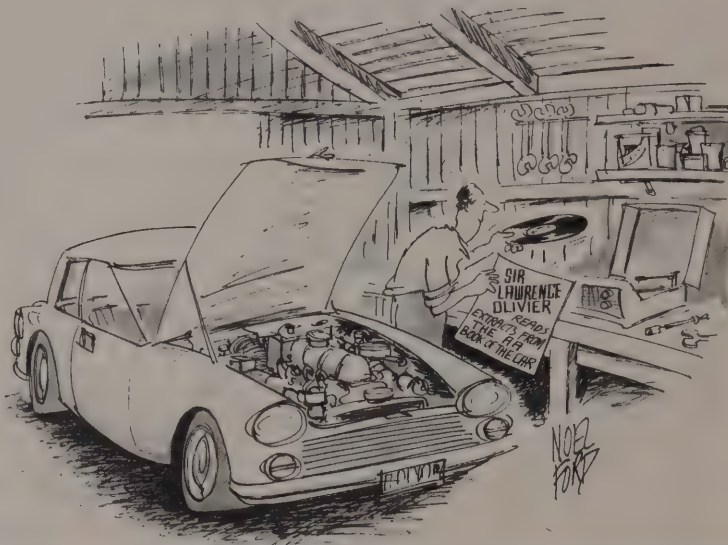
If you are involved in one of the most common types of crash, it is far better to be held in place by a lap-and-diagonal harness than to risk being thrown out of the car. Even in the unlikely event of the car rolling over, it is possible to slide out of this type of belt and lie across the passenger's seat. But, naturally, a seatbelt and a roll-over bar would be double protection.

Seal of Approval

The Mill Accessory Group's 2kg dry powder fire extinguisher and Efflow Development's Glidalong Popular series of trailers have been awarded the AA's Seal of Approval.

Approval has lapsed on Britax's Star Rider 50 child safety seat, Textet UK's Multi-Pull towrope, Mill Accessory Group's Paddy Hopkirk towrope, and Solar Accessories' universal door mirror.

See Seal 'extra'—centre pages



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Supertrol 001 fights rust where you can't see.



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So how do you fight rust you can't even see, let alone reach?

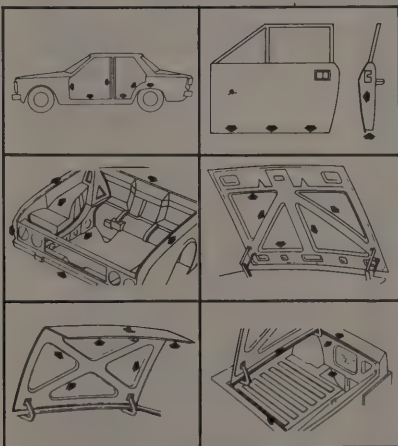
Simple—with Supertrol 001, the spray-on corrosion fighter from CADULAC. Use it as a deterrent, to protect your car before rust sets in. Or use it to fight rust that's already there. Either way, Supertrol 001 gets down to rust in a way that you never could.

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- ☐ Penetrates those hidden cavities.
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D54

Letters

Views to air? Tell **DRIVE** about your motoring and what it means to you. You can send letters for publication—unstamped—via **DRIVE** Directory, FREEPOST, Basingstoke, Hampshire

DRIVE à gauche

'Trivial' it may be, as the writer of the article 'C'est bon' suggests (September–October), but I had to smile when reading that 'if the menu is written in French *the French should be correct*'. For I had read, in the preceding paragraph, terms that were untranslatable, one of these being 'BOUILLABAISEE'!

I am sure that the compilers of a French dictionary, or Monsieur Larousse, would heartily concur with your sentiments.

Mrs H C Mitchell
London SW3

Merci for your carte amusante—you have, of course, raison. Our only excuse is that DRIVE's imprimeur is less familiar with affaires de cuisine than yourself or, in truth, our own M Wills, who is justifiably enragé about this faute d'impression.

I would not, however, go so far as to say that bouillabaise is untranslatable: joining the past participles of bouillir and baiser (and allowing for the English habit of dropping the odd acute accent) gives an appealing adjective that translates—albeit roughly and readily—as 'hotlipped'... perhaps more a comment on French waitresses than the food they serve.

Of course, the second of these two verbs has a colloquial translation that would throw an altogether different light on the matter... which could only be condemned by both the authors and readers of a family périodique—Rédacteur.

Mud in your eye

On the subject of working under vehicles ('Safe Down Under', July–August), I always wear a pair of goggles, as mud or rust invariably drops into my eyes. I also wear an old beret to protect my hair from dirt and—more important—to protect my head.
Dr A G Wheeler
Wythall, Worcs

Juggernaut

I read with interest Roy Johnstone's report 'The End Of The Road' (July–August), and have reached the conclusion that the answer to road deterioration is not in repair, but in prevention of damage in the first place.

We all know the cause of the most damage: juggernauts. If

these were restricted to motorways and major roads, and if more manufacturers could be persuaded to use rail transport, then the wear and tear of minor roads would be greatly reduced. Local authorities could then concentrate on the maintenance of these roads, leaving major highways in the capable(?) hands of central government.

Mark Ferguson
Bury, Lancs

Shattered

I would be very annoyed at having to pay extra for wind-down windows (World-wide, May-June) at the front, if not at the back—I prefer ventilation that way. I also like to put my head out when reversing into the garage, and be able to hear other traffic.

D Mitchell
Harpenden, Herts

... What are you supposed to do in such a vehicle if the indicators fail? Break the glass?

P Bromley
Admaston, Staffs

Fixed windows make a great deal of sense in America, where nine out of 10 vehicles are equipped with an air-conditioning system. They incorporate a small porthole allowing the driver to put his arm through to make hand signals in the event of indicator failure or to hand over change on toll roads—Editor.



MECHANIC

Winter water worries

WE MAY not have a white Christmas this year, but, as sure as Bing Crosby's record will soon be aired yet again, many drivers will suffer from neglected waterworks.

The lucky ones will be stranded at the roadside in a sauna of steam from a radiator that's boiled because mushy ice has blocked the system; others will wake up to a cracked cylinder block and the prospect of a repair bill that will make their blood freeze, too, and all because they left the checking of their water systems until it was too late.

Yet it takes only a short time to deal with cooling faults—even if you've only limited mechanical knowledge. You've heard it before? Well, in this case it's true.

Adding anti-freeze doesn't have to be an annual ritual, as most solutions retain their strength and inhibiting properties for two

years (unless frequently topped-up with only water). Nevertheless, if you're not changing the coolant, it's best to have the mixture's strength checked with a special hydrometer at your local garage.

If you are going to replenish the system, first drain off the water in the block (with the heater set to 'hot' to prevent air locks) and remove the top and bottom hoses in order to give the radiator a thorough 'back flush'. By forcing water the wrong way through the tubes, any sludge, scale and rust is removed to ensure trouble-free coolant circulation.

Don't refit the old hoses if you're in any doubt as to their serviceability. Fit new ones, preferably with decent worm-drive (Jubilee-type) clips for the best seal; unlike plain water, anti-freeze mixture has a nasty habit of seeking out weak spots in the system and leaking away.

The degree of protection given by anti-freeze depends on the proportions in which it is mixed. An approximate guide is:

% of anti-freeze	Erost protection	Driving protection
25	—26°C	—12°C
33½	—35°C	—20°C
40	—41°C	—24°C

A 25%–30% mixture is reasonably safe for winter motoring in this country.

In a severe winter the car's cool-

ing fan serves no useful purpose for much of the time, but removing the blades, as some people do, is a drastic move. There is always the chance of being stuck in a traffic jam... If your engine is running too cool, you can blank off the lower third of the radiator with a sheet of hardboard or even with kitchen foil—but keep a careful eye on the car's temperature gauge.

A safer—though more expensive—approach to the problem is to fit an electric cooling fan that has a thermostatically-controlled switch to bring it into operation only when it's required. Wood-Jeffreys and Kenlowe make electric fans for a wide range of cars at about £35.

Don't neglect the other vital winter water system in your car—the windscreen washers. Add a measure of winter screenwash solvent to prevent them freezing up, but *don't* use coolant anti-freeze: it causes 'rainbows' on the glass and can also mark the car's paintwork.

Finally, make sure that the heater's water valve is lubricated and working freely. Those that have had little use during the summer months tend to corrode and become inoperative.

Prepare for the worst now with these brief, inexpensive checks, and you'll ensure that your winter isn't one of discontent.

CHASES WATER OFF MILD STEEL PLATE IN 7 SECS!



HOLDS CAR IN
**SHOWROOM
CONDITION**
ENTIRELY
RUST FREE!

**EASY! QUICK! AND
CLEAN!**

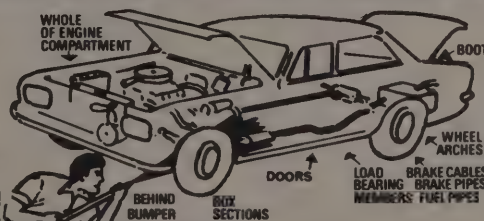
NO NEED TO CRAWL UNDER CAR (in most cases). Finnigan's Applicator forces airless spray into entire car underbody. **HEAVY COATING.** One gallon equivalent to THIRTY aerosols at one sixth of cost!

AA inspection indicates no rust on visible **WAXOYL** treated areas.

NORTH SEA OIL LAING off-shore's largest Rig uses **WAXOYL** on sea-washed equipment

One of world's biggest oil companies says: "Of all rustproofers tested, **ONLY WAXOYL** KILLS existing rust"

ICI recommend **WAXOYL** for brine circulation pipes



EASILY RUSTPROOF CAR IN ½ A DAY!

LIVENS-UP OLDER CARS. Revives 'tired' electrical insulation. Disperses water in plugs distributor. Instant wet weather starting. One coating outlasts engine. Wax content lubricates. Saves repairs. Restores trade-in value. Eases door closure, smooths window mechanism. Silences road noise, hidden squeaks and rattles. Use coupon now.

WHY BIG WORLD USERS TRUST WAXOYL RUSTPROOFING

WAXOYL DOES AS IT SAYS. Kills rust. Users report: SWISS GOVT. LAB TESTS: 'Rust stopping qualities very good'. CITROEN CAR CLUB: 'Fantastic stuff'. BRITISH STEEL CRPN: 'Most satisfactory'. SWISS AUTO RACING A.G.: 'Clean, easy application. No after-cleaning'. WESTERLY MARINE, PORTSMOUTH: 'Waxoyl protection excellent on marine diesel oil tanks'. (Tank bases otherwise impossible to rustproof, standing on supports). MOTOR MAGAZINE: 'Remains active indefinitely'. CHRYSLER CENTRE, BASEL: 'Application so clean. Entirely satisfied'. ROVER SPORTS REG. MEMBER: '197,000 miles. No sign of Waxoyl penetration'. LEICESTER: 'On '72 Beetle,

MIN. PREPARATION. NO SKILL. NO SPECIAL EQUIPMENT. Thin dust layers act as 'binding' agent. FINNIGAN'S APPLICATOR rustproofs wheel-arch in only 30 SECS! Forceful airless spray up to 4ft long. 100% EFFECTIVE SWIRLING ACTION and shaped nozzle, sprays right into small screw holes. No drilling. No mess. No waste.

since new: extremely satisfied.

NEVER COMPACTS WITH AGE Waxoyl flexes with vibration, outlasts conventional underbody seals that as you've probably observed, often oxidise; crack, flake off. Expose metal to air moisture rusting. Waxoyl actually benefits existing body seals, prolongs life. Makes and keeps them soft and supple. As further bonus, Waxoyl re-seals broken areas. Kills invading rust spores. Holds top book price value!

WAXOYL is clean, exceptionally easy and quick to apply. Order now, deal direct with an old established manufacturing concern, with world wide reputation for honesty and fair dealing. Order with every confidence.



RUST GNAWS UPWARDS to metal surfaces, despite dedicated polishing. Factory-NEW cars hide rust pinpoints within faulty seams, spot-welded joints. Assembly line rivets, bolts, crack paint on prefab panels. Rust air damp creeps through thinnest gaps. Grows, spreads, penetrates. Gnaws metal. Brush-on rust killers can't restore surface bubbles damage. Every inch of surface rust scraped and painted over still leaves devilish rust on the UNDER side. Hidden! And deep in-below corrosion weakens suspension, load-bearing members, brake cables, sills, box sections. The very vital spots that Waxoyl rustproofs for evermore! Lowers depreciation by at least £150 p.a.

Most up to date rust inhibitor known to science?

Waxoyl's rust inhibitor sets it apart from all rival systems. Believed to be the most up to date (according to world users) because Waxoyl polarises the metal, prevents electrolysis, halts corrosion. **Prevents reactivation!** Never exhausts itself with time, like chemically activetypes used by many rival rustproofers. **TRADE HOUSES CHARGE UP TO £80** for rustproofing, mostly for labour. **DO-IT-YOURSELF** with Waxoyl at only ONE TENTH of cost. Pay simple for raw materials at manufacturers' prices. Save up to 50% on many competitors' materials. Needs no further attention apart from 30 sec. wheel arch Autumn check.

FORGET CORROSION. Waxoyl micro rust killer inhibitor resembles tadpoles! 'Tails' penetrate oil, grease, mud with magnetic speed attracted to metal like dust to LP records. With deadly efficiency molecules sink deep into every minute pore within entire vehicle surface. Replaces air moisture stops and KILLS iron oxide

KILLS SUMMER DAMP HAZARDS on wet, sticky days. Protects raw metal edges within sills, box sections, door panels as trapped condensation drips into pools of moisture, even in garaged car. **FORGET CORROSION!**

ORDER DIRECT. Personal callers welcome 9 till 4.30 Mon.-Fri. MINI & 1100 SIZES. 5 litres (1.1 gal.) £11.00 + 85p carr. **LARGE SALOONS:** 10 litres (2.2 gal.) £9.27 + 85p 20 litres (4.4 gal.) **DRUM** £17.16 + 95p. Finnigan's Applicator £1.95, 28pp/p. **TRAIL OFFER:** 500 ml. (8.8pt) TIN for your trigger oil can test behind chrome strips (or brush on door edges, free brake linkages, etc). Watch Waxoyl chase water off a simple metal strip. Quite amazing! Send 85p add 58p.

TRIAL OFFER

To FINNIGAN'S LTD (D.R.W.) Etringham Works, PRUDHOE, Northumberland. Ph. 0661 32411

Rush my order as shown (please tick)

☐ 5 litres Chq/PO/MO/cash £.....

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☐ Appli- Block Caps

☐ Trial Address

☐ Offer

Regd Office 354 180 (London)

THE BIGGEST BRE BRITISH CAR AND MOST PEOPLE



After putting millions of pounds into our rather remarkable new 'O' series engine, it saddens us that it will only be seen by the man who tops up the oil.

Seen, perhaps, but felt by everyone who ever drives it.

Turn on the engine and listen. You'll have to listen very hard, because our cunning idea of driving the overhead camshaft with a tooth belt quietened the noise you'd normally expect from any motor car.

We also balanced the clutch, its fly-wheel unit and the five-bearing crankshaft in such a way that we've virtually eliminated any shake, rattle and roll.

The result in plain English is astonishing quietness and smoothness.

Put your foot down and keep an eye on the fuel gauge. You'll have to watch for a long while before you see the needle move, because even the government couldn't find a more economical 2 litre four or five seat car in the most gruelling test of all: stop-start town traffic.*

While the 1700 engine has achieved the seemingly impossible: more powerful than the 1800 it replaces, yet 20% more economical*.

BREAKTHROUGH IN A FOR YEARS WON'T EVEN SEE IT.

But it's going to be hard to concentrate on the fuel gauge, because the power of our new 'O' series engine tends to demand all your attention.

The trick that caused the breakthrough lies in the Heron type combustion chamber, in the piston crown, straight inlet tracts, an aluminium cylinder head and extremely fine manufacturing tolerances. Never before has there been quite such a package under one bonnet.

No point was too small for our meticulous attention: even the way we tightened the cylinder head benefited from what we learned from advanced aerospace technology.

However, you don't need a university degree to appreciate the way the engine keeps on going, come hell or high water.

And with garage bills as they are today, you'll be relieved to learn that one of the first improvements we made was in access to the working parts. It'll take the garage man less time to service it, so he'll charge you less.

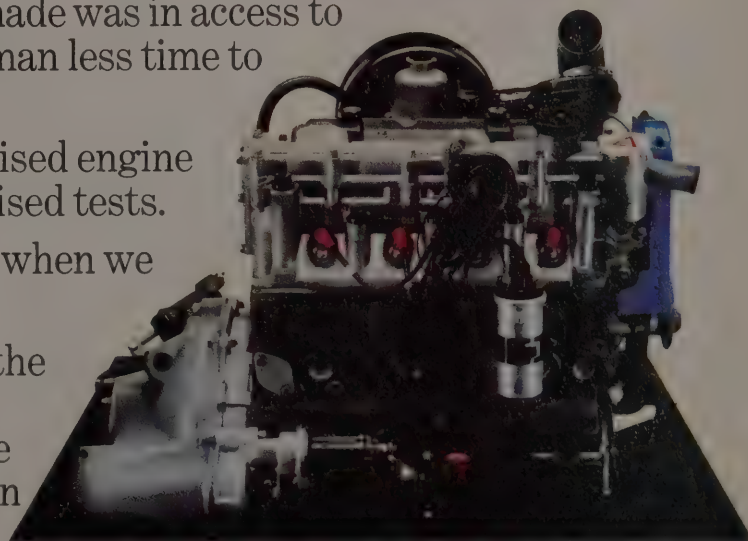
Needless to say, this very civilised engine was put through a series of very uncivilised tests.

Two million miles of them. So when we say it's a breakthrough, we mean it.


In fact, in collaboration with the smooth and powerful overhead cam 6 cylinder engine in Princess, we believe our new engines are not going to be seen by a record number of people.

PRINCESS. OFFICIALLY CERTIFIED FUEL CONSUMPTION FIGURES.

	Simulated Urban Driving		At 56mph (90kph)		At 75mph (120kph)	
	MPG	L/100KM	MPG	L/100KM	MPG	L/100KM
Princess 1700L & HL manual	23.7	9.5	38.2	7.4	26.4	9.9
Princess 1700L & HL automatic	23.6	9.6	33.8	8.3	25.3	11.2
Princess 2000HL manual	27.2	10.4	37.7	7.5	27.7	10.2
Princess 2000HL automatic	27.8	10.2	32.1	8.8	23.6	12.0
Princess 2200HL & HLS manual	22.1	12.8	34.0	8.3	27.0	10.5
Princess 2200HL & HLS automatic	21.7	13.0	30.0	9.4	23.0	12.3



THE NEW 'O' SERIES ENGINE IS IN THE NEW PRINCESS 2.

From Austin Morris with Supercovers 

* Figures obtained in the government-simulated urban cycle.

The Princess 2 is available in 3 models. 1700L £3723.28, 1700HL £3880.34, 2000HL £4058.90, 2200HL £4389.84, 2200HLS £4889.43. Prices include front seat belts, car tax and VAT, delivery and number plates extra (correct at time of going to press)

SPAIN
AGAIN



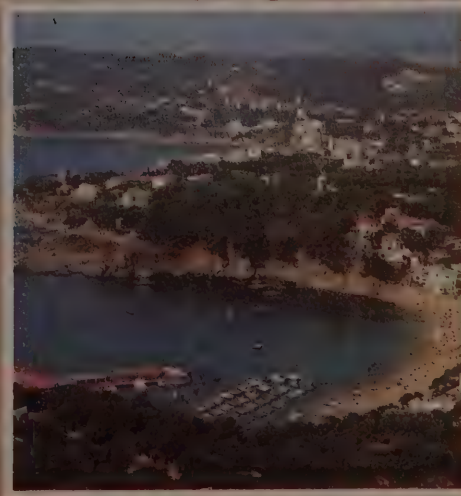
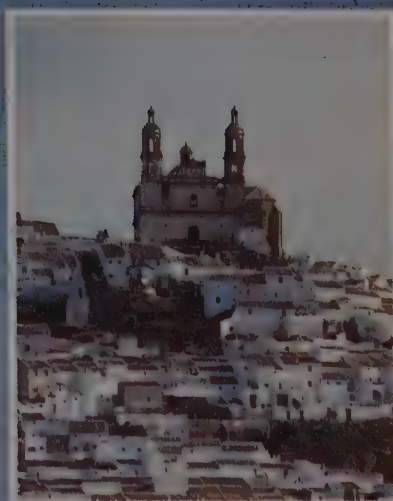
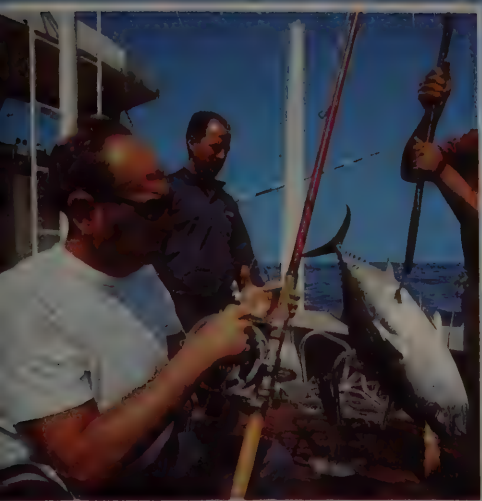
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Spain described as a continent in miniature has an exceptional variety of scenery, climate and culture. From the temperate North to the constant sunshine of the South, from the snow capped mountains of the Pyrenees and Sierra Nevada to the 3,000 miles of Atlantic and Mediterranean Coast, from the centuries old cities with their Roman and Moorish architecture to the ultra modern resorts/Spain offers an unparalleled selection of them for many holidays.

Choose an Hotel, Villa, Apartment, Camping or Caravanning holiday any time of the year and sample Spain's rich variety for yourself. Visit your AA or local Travel Agency for details of the fabulous range of holidays available in Spain or write to the

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Whatever you're thinking of buying that's going to cost you £200 or more, you'll find you're better off buying it with the help of an AA Members Loan.

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- * You buy now, at today's prices.
- * You spread the cost over monthly instalments.
- * Your instalments are lower than most other finance plans

because you enjoy a special reduced rate of interest exclusively arranged for AA Members.

Save time by using the form opposite to apply for your loan now. We promise you a speedy answer.

How much? How long? The minimum initial loan is £200 and normally repayment can be spread over periods up to five years and even longer for more costly home improvements.

All loans are subject to compliance with government controls, for example the maximum loan on a motor car is two thirds of the cost and the longest payment period is 24 months.

Apply now Below are tables at the current rate of interest which will help you decide on the loan which suits you best. Complete the application form opposite and post it to Mercantile Credit, FREEPOST, London WC2B 5XA... no stamp is needed. As soon as your loan is approved you will receive a personal cheque in a few days.

AA MEMBERS' LOAN MONTHLY REPAYMENT TABLES

Interest on amount of loan: 1-2 years - 10.5% flat for each 12 months 3-5 years - 11% flat for each 12 months

Amount of loan	12 Months True interest 20.5% p.a.			24 Months True interest 20.5% p.a.			36 Months True interest 21% p.a.			48 Months True interest 20.5% p.a.			60 Months True interest 20% p.a.		
	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.	Total Repayable	Interest	Mthly. Pay.
£	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p	£ p
200	221.04	21.04	18.42	241.92	41.92	10.08	266.04	66.04	7.39	288.00	88.00	6.00	310.20	110.20	5.17
300	331.56	31.56	27.63	363.12	63.12	15.13	398.88	98.88	11.08	432.00	132.00	9.00	465.00	165.00	7.75
400	441.96	41.96	36.83	484.08	84.08	20.17	532.08	132.08	14.78	576.00	176.00	12.00	619.80	219.80	10.33
500	552.48	52.48	46.04	605.04	105.04	25.21	664.92	164.92	18.47	720.00	220.00	15.00	775.20	275.20	12.92
600	663.00	63.00	55.25	726.00	126.00	30.25	798.12	198.12	22.17	864.00	264.00	18.00	930.00	330.00	15.50
700	773.52	73.52	64.46	846.96	146.96	35.29	930.96	230.96	25.86	1,008.00	308.00	21.00	1,084.80	384.80	18.08
800	884.04	84.04	73.67	967.92	167.92	40.33	1,064.16	264.16	29.56	1,152.00	352.00	24.00	1,240.20	440.20	20.67
900	994.56	94.56	82.88	1,089.12	189.12	45.38	1,197.00	297.00	33.25	1,296.00	396.00	27.00	1,395.00	495.00	23.25
1,000	1,104.96	104.96	92.08	1,210.08	210.08	50.42	1,329.84	329.84	36.94	1,440.00	440.00	30.00	1,549.80	549.80	25.83

For loans in excess of £1,000, total repayable, interest and monthly payments are pro rata. Rates at 1st September 1978.



Use this form to get your cheque quicker

To apply for your AA Members Loan complete this form and post to
Mercantile Credit, FREEPOST, London WC2B 5XA.

Surname _____

First Names _____

Married/Single _____ (Tick as applicable)

Country of Birth _____

Date of Birth _____

Are you in good health? YES/NO _____ No. of dependent children _____

Full postal address _____

Postal Code _____

How long at address? _____

Tel. No. _____

DEPT. _____

SERIAL NO. _____

CHECK DIGIT _____

For office use only

Owner/Tenant House/Flat/Rooms/
Living with parents _____ (Tick as applicable)

Profession or trade _____

Name of employer _____

Business Address _____

How long in their employ? _____

Bankers _____

Bankers address (in full) _____

Do you hold a Barclaycard? YES/NO _____

AA Membership No. _____

Purpose of loan (give details) _____

Total cost of goods or service £ _____

Amount of cash required £ _____

Repayment period required _____ months

Average net monthly take-home pay (i.e. after
deduction of Income Tax, N.H.I. Contributions, etc.)
£ _____ monthly

Any other income £ _____ monthly

Please submit your latest P.60 or other annual
advice or at least two monthly/weekly pay slips

Mortgage payments/Rent £ _____ monthly

Total of current hire purchase and credit payments
£ _____ monthly

Any other regular payments £ _____ monthly
(Give details)



You may make all enquiries necessary to enable you to consider this application and also to disclose to the National Credit Register details in respect of this transaction excluding any information relating to income. It is understood that you reserve the right to decline this application without stating a reason. Membership of the Automobile Association or a previous or current account with Mercantile Credit do not of themselves ensure acceptance.

453

SIGNATURE _____

DATE _____



USED-CAR PRICE GUIDE

Rust!

THERE'S NOTHING pure about the air we breathe nowadays. It contains tons of industrial fall-out that dissolves every time it rains to form a weak acid—not the best treatment for car paintwork.

Even in the countryside, fertilisers and crop sprays can become car-killers over the years, and the salt that's laded on to the roads every winter is a very efficient underbody rust when it's packed into mud poultices and warmed in the garage or spring sunshine.

It all sounds like gloomy news for the car hunter whose purse confines him to recent but 'flimsy' secondhand models—but take heart. Says AA engineer Chris Warwick: 'Rust problems are becoming less worrying each year. Of course, there's still superficial rusting, but rust penetration isn't nearly as common as it was.'

The secondhand-car buyer's real problems are how to distinguish between surface rust and more-serious corrosion, and whether the rust on his prospective purchase is a cosmetic blemish or a structural threat that could earn an MoT failure. Rusty sills, for example, are no danger on a Ford Cortina with its separate chassis, but decidedly worrying on a BLMC 1100/1300 on which the sills are part of the subframe.

Sadly, even a car that has been garaged regularly is unlikely to remain unmarked, for a wet-car-warm-garage environment is exactly what the rust-bug loves...

AA engineers find rust on many brand-new cars, so a secondhand model without rust must be rare. Indeed, DRIVE's used-car price guide assumes some rusting.

Our list contains 100 of today's most popular models in the UK. Specifications are compiled from AA road-test reports, the reference numbers and issue dates of which are shown in the table.

But if you're really keen to find a rust-free elderly car, try hitch-hiking to Portugal and buying a local vehicle. Despite its humidity and long coastal area, Portugal's lack of industrial fall-out and snow make it a crock's paradise.

MAKE AND MODEL	£ latest new price	AA Road Test Report No	Date	engine cc	mean top mph	acceleration 0-60 in sec	overall mpg	insurance group	MODEL YEAR Average secondhand price guide						
									1977	1976	1975	1974	1973	1972	1971
Alfa Romeo Alfesud SE	3100	354	8/74	1186	92	16.1	32.5	4	2195	1815	1490	1205	—	—	—
Audi 80 L	4097	389	6/76	1297	91	14.2	31.75	5	2950	2330	1860	1490	1165	—	—
Audi 100 LS	S	314/RI 139	1975	1761	100	12.7	29.25	5	—	2675	2105	1760	1340	1090	895
BMW 1602 Lux	D	363	1/75	1573	94	14.4	29.0	6	—	2525	2105	1910	—	1190	1040
BMW 520 i	6749	327	12/73	1990	111	9.7	29.0	S/R	5695	4705	3765	3020	2380	—	—
Chrysler Imp de luxe	D	258	9/71	875	78	20.0	36.0	1	—	1160	995	850	720	610	505
Avenger 1300 2-door	2535	337	4/74	1295	83	19.0	30.5	2	2110	1540	1320	1120	—	—	—
Avenger 1600 GLS auto	3711	339	5/74	1600	93	13.9	26.5	4	2700	2045	1740	1470	—	—	—
Alpine S	3784	381	4/76	1442	97	14.3	32.0	5	2875	2440	—	—	—	—	—
Hunter GL 4-door	3448	234	1/71	1725	86.5	15.0	28.7	3	—	1830	1560	1325	1110	935	780
Sceptre Mk3 auto	D	169	10/68	1725	97	14.1	28.6	4	—	2150	1825	1535	1290	1070	885
Chrysler 2litre auto	4325	308	5/73	1981	102	13.2	24.0	5	3140	2290	1845	1455	1110	—	—
Simca 1100GLS 5-door	2761	298	1/73	1118	85	16.5	33.25	3	1860	1575	1335	1120	935	775	630
Citroen 2CV6	1767	RI 118	1975	602	66	37.2	44.0	1	1275	1060	895	—	—	—	—
Citroen Dyane 6	1950	366	3/75	602	70	29.5	47.0	1	1375	1100	935	780	650	535	435
Citroen GS1220 Club	3099	384	5/76	1222	93	17.2	33.0	4	2145	1745	1440	1180	955	—	—
Citroen CX2000	4967	416	5/77	1985	107	12.7	29.25	6/7	3370	2750	2355	—	—	—	—
Colt Lancer 1400 GL 4-door	3249	371	11/76	1439	94	12.9	34.0	5	2240	1805	—	—	—	—	—
Daf 66SL	S	317	9/73	1108	79	23.5	29.0	3	—	1100	935	790	—	—	—
Datsun Cherry 100A 4-door	S	284	8/72	988	83	17.7	41.25	3	—	1640	1400	1190	1010	850	715
Datsun 120Y coupé	2982	336	3/74	1171	86	17.7	39.0	4	2245	1925	1635	1385	—	—	—
Datsun Violet 140J	2877	RI 132M	1975	1428	94	15.5	32.0	4	2090	1870	1500	1260	—	—	—
Datsun Bluebird 180B	3257	316	8/73	1770	104	12.3	27.0	5	2270	1930	1625	1370	1150	950	—
Fiat 126	1640	334/RI 138	2/74	594	62	60.0	48.5	1	1175	1015	880	755	650	—	—
Fiat 127 3-door	2299	RI 137M	1975	903	82	18.4	41.75	2	1670	1430	1220	1030	880	—	—
Fiat 128 4-door	2530	320	9/73	1116	86	15.5	34.0	3	1735	1480	1260	1065	900	755	630
Fiat 131 1600S	3365	369	6/75	1585	94	13.6	32.0	5	2410	2225	1720	—	—	—	—
Fiat 132 1800GLS	S	360	1/75	1756	102	12	25.0	6	—	2060	1695	1525	—	—	—
Ford Fiesta 1000 HC	2260	417	4/77	957	83	18.4	41.0	1	1925	—	—	—	—	—	—
Ford Popular 1.1	2205	RI 136M	1975	1097	77	23.6	35.0	1	1785	1535	1325	—	—	—	—
Escort 1300XL 4-door	S	292	11/72	1297	88	16.0	31.0	2	—	1495	1290	1100	940	800	—
Cortina Mk3 1600XL 4-door	S	323	10/73	1593	95	15.1	27.0	3	—	1995	1685	1435	1225	1030	875
Cortina 2000E Estate	S	347/RI 116	1974	1993	99	12.3	27.5	5	—	2665	2180	—	—	—	—
Capri MkII 1600GT	S	342	6/74	1593	102	12.4	27.5	5	2980	2515	2170	1945	—	—	—
Capri 3000 Ghia auto	S	RI 114	1974	2994	113	9.9	22.0	6/7	4320	3625	3040	2645	—	—	—
Granada 3000 GXL auto	S	282	6/72	2994	108	11.7	21.0	6	—	2625	2030	1510	1065	—	—
Honda Civic 1200 3-door	2610	362	3/75	1169	86	14.7	34.75	4	1895	1615	1370	1160	—	—	—
Honda Accord auto	3890	420	5/77	1600	89	14.7	32.0	5/6	2865	—	—	—	—	—	—
Lada 1200	1955	355	9/74	1198	91	15.0	33.25	3	1400	1185	1005	845	—	—	—
BL Mini 850	2091	340	5/74	848	73	26.1	41.0	1	1530	1325	1050	905	770	655	555
Mini Clubman Saloon	2437	410	1/77	1098	82	18.2	40.5	1/2	1875	1605	1285	1095	945	805	680
1300 Mk2/3 4-door	D	239	2/71	1275	87.5	17.2	36.5	2	—	—	1075	925	790	670	—
Allegro 1300 Mk1	S	329	1/74	1275	86	16.0	34.75	2	—	1460	1230	1030	—	—	—
Allegro 1300 Mk2 4-door	2905	377	2/76	1275	85	19.0	37	2	2050	1720	—	—	—	—	—
Allegro 1500 Estate	3212	RI 127M	1975	1485	90	16.6	34.25	3	2480	2120	1825	—	—	—	—
Mxi 1750 Mk2	3449	263	1/72	1748	90	14.6	28.75	3	2510	2035	1730	1465	1225	1025	855
Princess 1800HL	S	397	8/76	1798	96	14.2	29.75	4	2645	2175	1900	—	—	—	—
Princess 2200HL	4390	RI 129N	1975	2227	105	12.7	26.5	4	2725	2200	1925	—	—	—	—
Marina Mk2 1.3 4-door	2912	392	7/76	1275	85	18.2	33.0	2	2180	1835	—	—	—	—	—
Marina Mk1 1.8 4-door	S	295	1/73	1798	96	12.8	31.5	3	—	1625	1370	1150	960	795	—
MG Midget Mk3	S	205	2/70	1275	93	14.8	29.1	4	—	—	1235	1040	880	740	—
MGB Mk2/3	3773	243	4/71	1798	105	11.8	23.9	6	2825	2405	2030	1885	1415	1190	995
Jaguar XJ6 4.2	S	227	10/70	4235	117	10.0	16.75	6/7	—	—	3690	2380	1960	1635	—
Jaguar XJ12(L)	S	305	4/73	5343	136	7.6	13.0	7	—	—	4655	3765	2330	—	—
Rover 2200SC	D	324	11/73	2205	104	12.2	24.0	4	3715	3095	2455	2030	—	—	—
Rover 3500 auto	S	330	2/74	3528	112	11.1	20.5	5	—	3490	2775	2280	1760	1415	1165
Range Rover	9151	252	7/71	3528	101	13.2	18.0	5	8465	7525	6140	4905	4085	3320	2700
Triumph Toledo 4-door (Dolomite)	3140	345/RI 150	1977	1296	83	19.8	33.0	2/3	2325	1985	1510	1300	1115	950	—
Triumph Dolomite 1850	S	288	9/72	1854	100	11.4	28.25	4	—	2305	1935	1635	1365	1140	—
Triumph 2000 Mk2	D	219	6/70	1998	95	15.0	26.0	4	—	—	2245	1960	1390	1140	945
Triumph 2500 TC	D	RI 112	1974	2498	101	11.5	27.0	5	3665	2550	2405	2030	—	—	—
Triumph Spitfire 1500	3246	376	2/76	1493	97	12.5	35.25	5	2360	1985	1680	—	—	—	—
Triumph Stag	D	273	3/72	2997	118	10.2	22.5	S/R	5325	4360	3540	2875	2330	1835	1415
Triumph TR7	4268	401	11/76	1998	108	10.2	28.75	6	2900	2480	—	—	—	—	—
Mazda 1000 2-door	1921	343	6/74	985	78	20.0	33.5	3	1520	1295	1095	930	—	—	—
Opel Kadett S estate 3-door	3006	338	5/74	1196	84	16.7	32.0	4	2235	1910	1620	1365	1070	845	700
Opel Ascona 1.9SR	S	302	3/73	1897	96	12.3	25.5	6	—	—	1905	1535	1220	—	—
Opel Rekord 4-door	S	287	8/72	1897	101	12.0	26.0	4	—	—	1835	1510	1265	1090	—
Peugeot 104 4-door	S	325	11/73	954	84	17.3	36.5	3	—	1610	1385	1175	1000	—	—
Peugeot 304	S	386	5/76	1290	92	16.7	35.5	3	—	1980	1680	1410	1180	975	800
Peugeot 504GL	4252	RI 140	1976	1971	99	13.7	27.75	5	3270	2775	2280	1885	—	—	—
Peugeot 504 estate	4655	275	4/72	1971	98.5	13.8	24.5	5	3890	3295	2750	2255	1885	1560	—
Reliant Scimitar GTE	7014	303	3/73	2994	118	9.1	21.25	7	5470	4385	3445	2850	2405	1960	1610
Renault 4TL	2295	RI 121	1975	845	74	26.4	39.0	1	1705	1460	—	—	—	—	—
Renault 5TL	2524	349	8/74	956	85	19.7	42.0	2	1960	1670	1430	1210	1020	—	—
Renault 5TS	3050	370	11/75	1289	93	13.3	36.25	4	2260	1925	1635	—	—	—	—
Renault 6TL (1100)	2794	364	3/75	1108	82	17.9	37.75	3	2010	1720	1470	1245	—	—	—
Renault 12L	S	385	5/76	1289	82	18.1	34.5	3	2035	1745	1520	1270	1060	920	755
Renault 16TL	3594	291													

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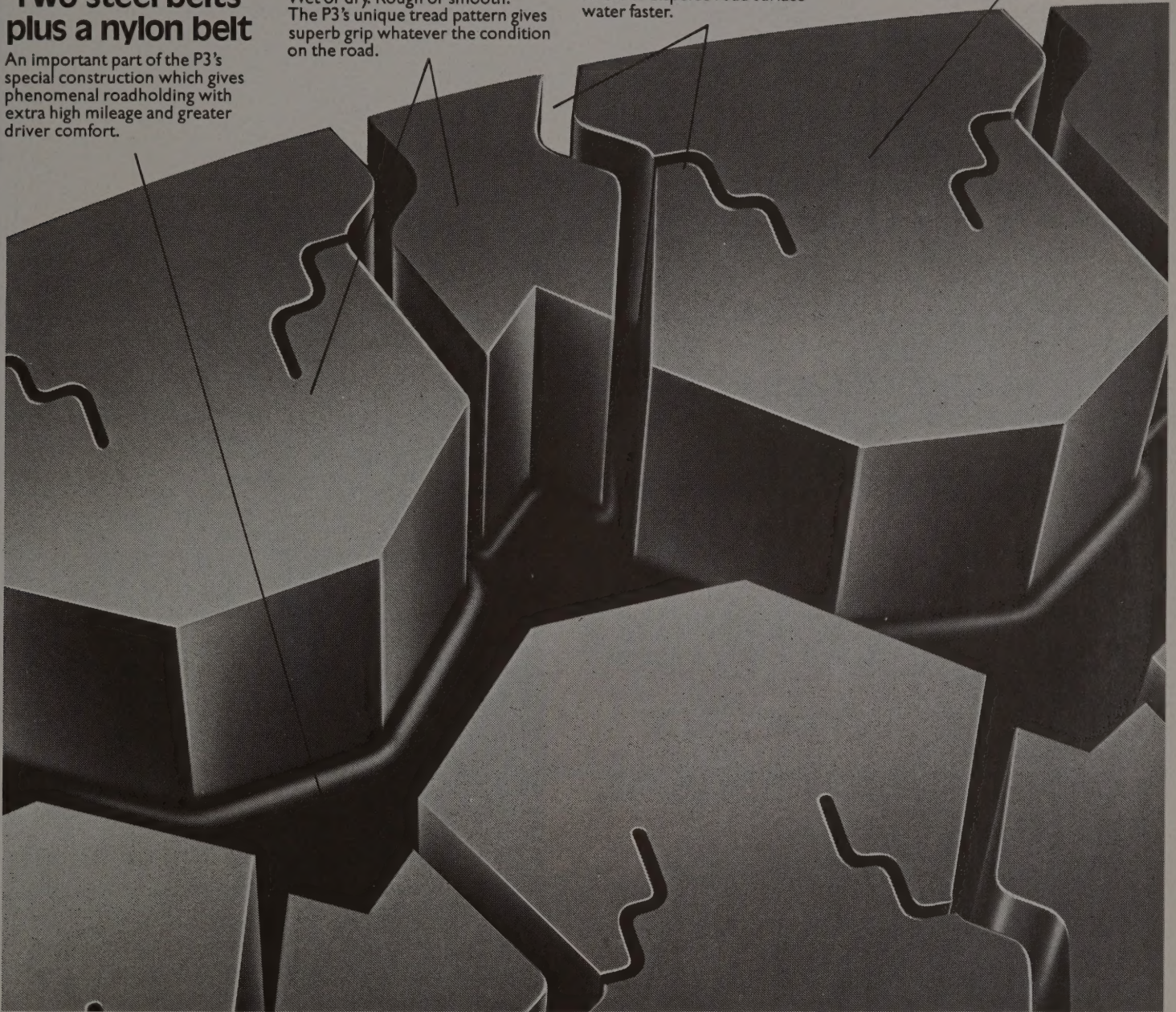
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